

Service Date: August 18, 1989

DEPARTMENT OF PUBLIC SERVICE REGULATION  
BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MONTANA

\* \* \* \* \*

IN THE MATTER of The Application	)	
Of the MONTANA POWER COMPANY for	)	UTILITY DIVISION
Authority To Adopt New Rates And	)	DOCKET NO. 88.6.15
Charges For Electric and Natural	)	ORDER NO. 5360d
Gas Service In The State of Montana	)	

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BEFORE:

CLYDE JARVIS, Chairman  
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JOHN B. DRISCOLL, Commissioner  
WALLACE W. "WALLY" MERCER, Commissioner  
DANNY OBERG, Commissioner

FINDINGS OF FACT

PART A

GENERAL

On June 30, 1988 the Montana Public Service Commission (Commission or PSC) received an application from the Montana Power Company (MPC, Company or Utility) to increase rates for both electric and natural gas service. The Company sought to raise electric rates to recover an additional \$28,645,360 (or 11.76%) in annual revenues, and natural gas rates to recover an additional \$13,903,486 (or 14.76%) in annual revenues. The Company included in its application a request for an interim increase in natural gas rates of \$7,102,027 (or 7.49%) in annual revenues. Docket No. 88.6.15 was assigned to this filing which was required by a settlement between MCC and MPC approved by the Commission in Docket No. 86.11.62 (the "Tax Reform" docket).

On July 14, 1988 the Commission issued a Notice of Application and Prehearing Conference in Docket No. 88.6.15.



In July of 1988 MPC filed the 1988 Annual Compliance Filing for Electric Avoided Cost Based Rates for Public Utility Purchases from Qualifying Facilities. Docket No. 88.7.26 was assigned to this filing.

In August of 1988 Boulder Hydro Limited Partnership filed a complaint against MPC. Docket No. 88.8.25 was assigned to this filing.

In August of 1988 a prehearing conference was held.

On August 19, 1988 MPC filed supplemental testimony regarding the level and treatment of pension expense as requested by the PSC.

On September 2, 1988 the PSC issued its Consolidation and Procedural Order for Docket Nos. 88.6.15, 88.7.26 and 88.8.25. In this order the PSC requested that parties address certain issues. Further, all three Dockets were consolidated into this proceeding.

On September 14, 1988 the PSC received a "Request for Clarification" from intervenor, District XI HRC (HRC) seeking clarification of the issues raised by the PSC in its Consolidation and Procedural Order of September 2, 1988.

On October 4, 1988 MPC filed a Motion for Protective Order which would limit access to and the use of information regarding the negotiations and the terms and conditions of the proposed sale by MPC to the Department of Water and Power for the City of Los Angeles.

On October 4, 1988 the PSC issued its Order No. 5360 providing the clarification sought by HRC of the Commission's Consolidated Procedural Order.

On October 12, 1988 the PSC issued Interim Order No. 5360a in Docket No. 88.6.15 for MPC's natural gas utility. An interim revenue deficiency of \$5,342,220 was established and the PSC found that rates should be increased uniformly by 5.6367 percent.

On October 17, 1988 the PSC issued a protective order in this proceeding concerning certain information sought by parties regarding the proposed sale by MPC to the Department of Water and Power of the City of Los Angeles.

On October 20, 1988 MPC filed a Motion for an Extension of Procedural Schedule in order to allow time for settlement discussions and orally indicated that it would waive the nine month deadline for a period of 30 days.

On October 25, 1988 the PSC granted the motion for extension of procedural schedule.

On October 25, 1988 the PSC received a motion for reconsideration from the Department of Natural Resources and Conservation (DNRC), a party in this proceeding, regarding the PSC's protective order.

On October 28, 1988 the following parties were granted intervention in this proceeding:

ASARCO, Inc. *	District XI Human Resource
Ash Grove Cement West *	Council (HRC)
Champion International *	Human Resource Council
Conoco, Inc. *	Director's Association
(HRC)	
Exxon Co., USA *	Mitex
Ideal Basic Industries *	Montana Irrigators, Inc.
Stone Container Corporation *	Montana Consumer
Counsel (MCC)	
Bonneville Power Adminis. (BPA)	Northern Plains
Resource	
Dominion Hydroelectric Group	Council (NPRC)
Westland Hydro Corp.	Shelby Gas Co.
Star Valley Hydroelectric, Inc.	Stauffer Chemical Co.
Idaho Natural Energy, Inc.	Treasure State Pipe Line
Co.	
Dept. of Natural Resources and	Consumers Gas Co.
Conservation	Malmstrom Air Force Base
Montana Tunnels Mining, Inc. *	.. (USAF)
Louisiana Pacific Corp. *	J. Burns Brown Operating
Co.	
Boulder Hydro	Montana Refining Co. *
Great Falls Gas Co.	Golden Sunlight Mines, Inc.
*	

(\* denotes large industrial users, collectively, LUIG)

In November, 1988 witnesses for the following intervenors filed direct testimony: LUIG, DNRC, Boulder Hydro, HRC, MCC, NPRC and MITEX. Separate testimony on

gas rate design issues was also filed by Stone Container Corporation.

On November 28, 1988 the PSC issued Order No. 5360b, Order on Reconsideration amending the previous Protective Order.

On November 28, 1988 MPC filed supplemental testimony as requested in the PSC's Procedural Order of September 2, 1988.

Although not a formal party to this proceeding, on December 15, 1989 testimony was filed by the Northwest Power Planning Council (NWPPC).

On December 16, 1988 MPC filed a Motion for An Extension of Time.

On February 1, 1989, MPC mailed its rebuttal testimony in these proceedings, consistent with the procedural order in this docket, dated September 2, 1988, as amended. In its rebuttal testimony, MPC revised its requested increases to \$18,782,575 for its electric utility and \$12,877,317 for its gas utility. Rebuttal and supplemental testimony was also filed by NPRC, LUIG, DNRC, HRC and MCC.

On February 8, 1989 the PSC received a Motion to Strike, Or In The Alternative, Motion for Continuance, filed on behalf of the Northern Plains

Resource Council. NPREC contended that certain portions of MPC's rebuttal testimony went beyond the proper scope of rebuttal, and should be stricken. In the alternative, NPREC requested that the hearing in this proceeding, scheduled for February 22, 1989 be continued. If the hearing were continued, NPREC also requested that the PSC establish a schedule permitting full discovery and an opportunity to file response testimony.

On February 9, 1989 the PSC received a Motion to Vacate Hearing and Strike Portions of Testimony, filed by the Montana Consumer Counsel. MCC also contended that the MPC rebuttal testimony was far beyond the appropriate scope of rebuttal. MCC requested that the PSC vacate the scheduled hearing and establish a new procedural schedule allowing for both discovery and response testimony by intervenors. MCC contended that regardless of the PSC's action on the hearing schedule, the PSC should strike those portions of MPC's rebuttal testimony relating to revised depreciation studies.

On February 10, 1989 the PSC received a Motion to Continue Hearings and for Leave to Submit Further Rebuttal Testimony from LUIG. The LUIG contended the hearing should be continued in its entirety, and that an

opportunity should be provided for further testimony by intervenors.

On February 13, 1989 the PSC received the response of MPC to the above-described motions. MPC agreed that the hearing should be vacated, but argued that it was "not convinced" that a new round of testimony was needed, and that additional discovery would suffice. MPC also contended that either the hearing should proceed in the natural gas portion of the docket, or an additional natural gas interim rate increase should be allowed. MPC stated that if additional testimony was allowed, the Commission should "be very careful in scrupulously keeping the additional testimony to only the issues which require additional testimony," and that MPC be afforded the opportunity to provide additional rebuttal. MPC also suggested that any new procedural schedule include a time certain by which a final order be issued. Finally, MPC stated that the MCC's motion to strike the depreciation study should not be granted. According to MPC, the study did not represent a change in the methods of analysis, but only an update of the numbers contained therein. Those numbers were based upon year end 1987 plant in service, thus matching the test period in this proceeding. Further, by way of additional discovery, MCC would be

given a full opportunity to investigate the updated depreciation costs.

On February 14, 1989 the PSC voted to vacate the scheduled hearing in this docket in its entirety. The existing procedural schedule was suspended, and parties were encouraged to continue their discovery efforts. A prehearing conference was scheduled for February 21, 1989, and a hearings examiner was appointed to preside over that conference.

On February 24, 1989 a Proposed Order on Motions and Procedural Order was issued by the hearings examiner. Exceptions to the proposed order were filed by MCC. A response to these exceptions was filed by MPC.

In March of 1989 representatives of the following intervenors filed response testimony: NPRC, LUIG, Boulder Hydro, DNRC, and MCC.

On March 8, 1989 MPC filed supplemental testimony regarding proposed settlement of tax issues between MPC and the Montana Department of Revenue.

On March 22, 1989, the PSC issued Order No. 5360c - Final Order on Motions and Procedural Order. This order granted MCC's motion to strike certain portions of MPC's testimony. Removed from further consideration in this docket were the following issues

found in MPC's rebuttal testimony: depreciation expense updates; the recent tax settlement; the Toston Dam payments. MPC agreed to extend the nine month deadline for this proceeding to August 14, 1989.

On April 19, 1989, a stipulation between MPC and MCC concerning several natural gas issues and coal costs was submitted to the PSC.

On May 10, 1989 a stipulation between MPC and MCC concerning cost of capital/capital structure issues was submitted to the PSC.

On May 18, 1989 a public meeting was held at the PSC's offices, where MPC and MCC discussed and reviewed the cost of capital/capital structure stipulation.

On May 5, 1989 additional rebuttal testimony was filed by MPC as well as the following intervenors: MCC, DNRC and Boulder Hydro.

Pursuant to proper notice, the general hearing in this proceeding convened on May 22, 1989 and continued through May 25, 1989. The general hearing reopened on June 5, and continued through and closed on June 9, 1989.

At the hearing, the testimony of MITEX was withdrawn, and no appearance was made by that party.



Further, the appearance of Boulder Hydro was withdrawn, and Mr. Tavenner indicated he was appearing pro se.

Pursuant to proper notice, satellite hearings were scheduled and held in the following towns: Bozeman, Missoula, Roundup, Billings, Helena, Glasgow, Malta, Havre, Big Sandy, Fort Benton, Lewistown, Choteau, Great Falls, Stanford, Harlowton, White Sulphur Springs, Townsend, Whitehall and Boulder.

During 1987, MPC provided electric service to an average of 245,276 customers and gas service to an average of 103,301 customers, all in Montana.

## PART B

### RATE OF RETURN

#### Cost of Capital

MPC and MCC filed with the Commission a cost of capital stipulation applicable to the Company's electric and natural gas operations for the purposes of this docket. The cost of capital stipulated is included as attachment #1. The stipulation contained the following agreed upon capital structures and associated capital costs:

Electric Utility

	<u>Ratio</u>	<u>Rate</u>	<u>Weighted Cost</u>
Long Term Debt	50.00%	9.00%	4.50%
Preferred Stock	6.00	7.29	0.44
Common Equity	44.00	12.50	5.50
Total	100.00		10.44

Natural Gas Utility

	<u>Ratio</u>	<u>Rate</u>	<u>Weighted Cost</u>
Long Term Debt	50.00%	9.36%	4.68%
Preferred Stock	6.00	7.29	0.44
Common Equity	44.00	12.50	5.50
Total	100.00		10.62

The stipulation calls for the Company to reevaluate its natural gas and electric utility capital structures due to concerns about the high proportion of equity capital contained therein. Upon completion of this reevaluation, MPC will discuss the preliminary results with MCC. MPC and MCC will then try to negotiate a methodology for capital structure determinations to be proposed for use in future cases. The stipulation lists December 31, 1989, as the date by which MPC and MCC will develop this methodology. The two parties requested that the Commission direct its staff to attend and participate in the discussions. If an agreement is not reached by the two parties, then each will present its own recommendations to the Commission in MPC's next general rate filing.

On May 18, 1989, MPC and MCC met with the Commission to review and discuss the merits of the stipulation. The meeting was open to all parties and to the public. Opposition to the

stipulation was not stated during the meeting, nor during the formal hearing in this Docket.

Based on a complete analysis of all relevant testimony, exhibits, data responses, work papers, and discussions concerning MPC's capital structure and associated capital costs, the stipulation is found to be reasonable for ratemaking purposes in Docket No. 88.6.15. The Commission strongly encourages MPC to soon commence its reevaluation regarding the appropriate mix of debt and equity capital for the electric and natural gas utility capital structures. Furthermore, the Commission directs its staff to attend all meetings held by MPC and MCC regarding this issue.

The Commission believes that the reevaluation of MPC's capital structure and all discussions related to it are of the utmost importance. Significantly different capital structures were proposed in this proceeding by MPC and MCC. The Commission is extremely concerned with the magnitude of changes that have occurred in the Company's capital structure in recent years.

In order to encourage the Company to undertake its capital structure reevaluation in an expedient, yet complete manner, MPC is hereby required to provide the following information to the Commission and to MCC by September 15, 1989:

- a. A complete narrative that explains in detail the manner in which the Company plans to conduct its reevaluation.
- b. A time schedule that delineates all important dates in the entire process such as; the beginning date

of the reevaluation, the expected completion date of the reevaluation, first meeting date with MCC and the Commission staff, etc.

MPC ELECTRIC

PART C

RATE BASE

Daniel Reardon, a witness for MPC, presented testimony and exhibits which supported the Applicant's requested rate base. In its original filing, the Company requested a total electric utility rate base in the amount of \$838,091,866. This represented a 13-month average rate base as of December 31, 1987, adjusted for known and measurable changes.

In rebuttal testimony, MPC revised its proposed rate base. The amount of electric utility rate base in Mr. Reardon's Exh. DRR-2 Revised is \$837,978,366.

MCC witness Albert Clark recommended several adjustments to the rate base proposed by MPC. Mr. Clark's net adjustment to MPC's original rate base proposal is a decrease of \$462,260. Therefore, MCC's proposed rate base for MPC is \$837,629,607, which is \$348,759 less than MPC's revised rate base. (Late-Filed Exhibit AEC-13)

All adjustments discussed below are made to MPC's originally proposed pro forma levels of rate base items as shown in

Column I of MPC witness Reardon's Exhibit DRR-2 Revised, which was presented in his rebuttal testimony.

### Conservation Expenditures

MPC proposes to include conservation expenditures in rate base and to amortize those costs over five years (MPC Exh. 33, p. 7). Mr. Houser of MPC stated in his direct testimony that conservation should be treated as a resource and the costs of the programs should be included in MPC's rate base. (MPC Exh. 22, p. 6)

Mr. Clark of MCC did not oppose the inclusion of MPC's conservation costs in rate base, but did disagree with MPC's proposed 5-year amortization of these costs. He proposes to use the estimated lives of these conservation projects (20-70 years) as the basis for the amortization periods (MCC Exh. 6, p. 21). Mr. Clark proposes to increase rate base by \$11,671 to reflect his recommendation.

In his rebuttal testimony, Mr. Pederson of MPC raises concerns about MCC's amortization proposal. He states that because investment in conservation does not result in the creation of an asset for the Company, and the amount of conservation expenditures in this proceeding is not substantial, he supports a short amortization period. Mr. Pederson adds that if the amounts of conservation investment were substantial, the Company would support an amortization period of up to ten years. (MPC Exh. 34. p. 2)

On cross-examination of Mr. Pederson, Mr. Nelson of MCC explored the effect of a 15-year amortization period for conservation costs. Mr. Pederson said that he has not yet made a determination as to whether or not the Company would be precluded from including conservation costs as an asset if the Commission required an amortization period of 15 years. (TR Vol. V, p. 1263)

Concerning the initial question of whether or not to give rate base treatment to MPC's conservation investments, the Commission finds that such ratemaking treatment is proper in this proceeding.

The Commission agrees with MPC that amortization periods of up to 70 years for conservation expenditures are probably inappropriate, but the Commission also recognizes that there are no rigid guidelines for the proper ratemaking treatment of these costs. The Commission, therefore, finds that a cautious approach in this matter is proper in this proceeding and accepts a 15-year amortization period for MPC's conservation expenditures. This results in an increase in rate base in the amount of \$9,774. This approach recognizes both the desire to recover these costs over a relatively short period of time and also the fact that this is a somewhat new area of ratemaking that calls for conservative action.

This matter can certainly be addressed in a subsequent rate filing.

Concerning MPC's desire for the Commission to determine specific accounting procedures to handle these investments (MPC Exh. 23, p. 23), the Commission believes that the proper approach is for MPC to present a proposal for review. As part of the evaluation process of such a proposal, MCC and any other interested parties could present views which could also be evaluated by the Commission. Any subsequent ruling by the Commission would fully consider all proposals and concerns presented in the proceeding.

#### Corette Studies

Over a period of several years, MPC conducted studies of meteorological conditions, the feasibility of upgrading the precipitator, and a boiler piping system inspection relating to the Corette plant in Billings (MPC Exh. 5, p. 10). MPC proposes to amortize these costs over five years. (MPC Exh. 33, p. 9)

MCC witness Clark agrees that these costs should be reflected in rates, but disagrees with MPC's proposed 5-year amortization of these costs and proposes to treat these items as part of the capitalized plant itself. This results in a 20-year amortization period. His reasoning for the longer amortization period is that MPC's proposed five-year amortization period has no basis, and these items should be considered as part of the capitalized plant. Mr. Clark's proposed adjustment results in an increase in rate base of \$57,293. (MCC Exh. 6, pp. 25-26)

In his rebuttal testimony, Mr. Pederson disagrees with MCC's proposal to treat these costs as part of the capitalized plant and to amortize them over the remaining life of the Corette plant instead of five years. He restates MPC's support of the 5-year amortization on the basis that these are not plant additions.

He adds that because the unrecovered investment is included in rate base, MPC would not seriously object to a longer amortization period. However, the length of such a period was not specified. (MPC Exh. 34, pp. 5-6)

The Commission finds that the cost of the Corette studies should be included in MPC's rates and agrees with MCC that those costs should be amortized over the remaining life of the plant, which in this instance is 20 years. The Commission believes that all of these costs relate to the long-term performance of the Corette plant, and a proper matching occurs by amortizing those costs over the approximate remaining life of the plant. Therefore, the Commission finds the reduction of \$9,604 to MPC's rate base to be proper in this proceeding to reflect the approved amortization of the costs associated with the various Corette studies.

#### Qualifying Facility Buyouts

According to Mr. Worring of MPC, the Company addressed a perceived problem with various QF developers by offering a monetary incentive in exchange for their commitment not to pursue their projects further. A total of 19 undeveloped QF projects were



targeted for settlement, representing a combined contract capacity of about 74 MW. MPC was successful in settling to termination 14 of those 19 projects for a combined contract capacity of about 42 MW. The total cost of this effort was \$935,000 (MPC Exh. 16, pp. 5-7). For ratemaking purposes, MPC proposed that the costs of the QF buyouts be amortized over five years and that the unamortized balance be included in rate base (MPC Exh. 33, pp. 9-10).

Mr. Worring generally reviewed the historical background to the QF contracts. In late 1984, the utility entered into a number of contracts with QF developers that established payments based on avoided cost rates promulgated in Order No. 5017, Docket No. 83.1.2. At that time, there was a general expectation that the avoided cost rates would be substantially reduced in a pending avoided cost proceeding, Docket No. 84.10.64. (MPC Exh. 16, p. 4)

Developers, anxious to receive the higher rates, demanded that the utility sign their contracts even though feasibility evaluation, planning, engineering and financial support were incomplete or known only at conceptual levels of understanding. Many developers failed to proceed with timely, orderly development, and all of the QF suppliers involved in the settlement effort were to have been on-line by the end of 1986, but none of them were. The utility, although including the projects as resources in its resource plan, became increasingly concerned about the QF developers' ability to conclude their projects and to deliver power

reliably. This uncertainty played havoc with the utility's resource planning process (MPC Exh. 16, p. 4). Such uncertainty posed a threat to the utility in that if such QF resources did not materialize, the utility would be required to purchase replacement power (if available) for unpredictable and, possibly, undesirable terms and prices. Mr. Worring stated that these prices probably would be greater than those resources that would otherwise be acquired if the utility substituted firm resources for these undeveloped and uncertain QF resources. MPC also saw a clear opportunity to reduce the potential revenue requirement resulting from these resources and to replace the high cost QF supplies with lower cost, more reliable resources. Those QF resources were among the highest cost prospective supplies of power. (MPC Exh. 16, p. 5)

MCC witness Clark proposed to eliminate all costs related to the QF buyout on the basis that the monies were imprudently expended because the QF developers were already in a position where they were in violation of the express terms of their contracts. Mr. Clark stated that to his knowledge, MPC never challenged any of the QF developers under their agreements despite the fact that none of these projects came on line on a timely basis. Mr. Clark reviewed the history of two of the larger QF contracts, pointing out that MPC allowed these projects to run well past their expected operation dates, amended the contracts to allow for extension of the operation dates, provided for cancellation options and then

agreed to pay cash to terminate contracts for projects which were still unable to meet the extended dates. Also, Mr. Clark reasoned that MPC sought the buyouts as part of its plan to help justify the purchase of Colstrip Unit #4 power. Mr. Clark's adjustment results in a decrease in rate base of \$516,402. (MCC Exh. 6, pp. 26-30)

In his rebuttal testimony, Mr. Worring criticizes MCC's position and maintains that MPC's proposed rate treatment of the QF settlement costs is appropriate. He contends that MCC is arriving on the scene late in this issue as a "Monday-morning armchair quarterback" in its allegations of imprudence in not terminating the QF contract (MPC Exh. 18, p. 2). Mr. Worring contends that MPC could not terminate these contracts unless there was a material breach, and that the failure of the QF developers to meet their operation dates was not a material breach of their contracts. (MPC Exh. 18, p. 3)

As support for his position, Mr. Worring pointed to a letter from the Commission staff, dated March 14, 1986, which was a product of a meeting with the Commissioners. The letter was in response to a question submitted by MPC to the Commission regarding whether or not the Commission believed that a failure to meet the operation date in the contract was a material breach justifying termination of the contract. The contracts which were specifically at issue were those agreements with Perkins Power and PLM. Mr. Worring stated that he believed that the letter from the Commission staff indicated the spirit of the Commission's thinking that future

extensions of the operation dates of QF contracts would be provided only if the developer exercised diligence in pursuing their contractual obligations. (MPC Exh. 18, pp. 3-5)

In conclusion, Mr. Worring offered the following reasons for finding MPC's action in pursuing the QF buyout to be prudent:

- a) A court could have ruled that MPC did not have sufficient grounds to terminate the contracts. This could have led to damages assessed against the company equal to the expected profits over the life of the projects.
- b) The developers would have likely pursued "bad faith" damages against MPC for terminating the contracts, which include punitive damages.
- c) The developers would have pursued actions before the Commission, and then the courts, leading to a time-consuming and expensive process for all involved, including the Commission. (MPC Exh. 18, pp. 5-7)

An extensive amount of cross-examination was conducted on this issue at the hearings in this docket. Mr. Worring testified that the letter from the Commission staff dealt precisely with the circumstances and language contained in the contracts with Perkins Power and PLM. These contracts were standard contracts between MPC and the QF developers, and referred to the operation date as the "expected" operation date. This language was intended to provide the QF developers with flexibility in meeting their operation dates (TR 640-644). In March, 1986 the PLM contract was amended to provide for a new "expected" operation date (TR 645). In December, 1987 PLM and MPC were working on a second amendment to the

contract, which would provide for milestone dates to be met by PLM (TR 657). Afterwards, PLM requested a change in the contract purchase rate and indicated that without such a change, the project would be unfeasible. MPC refused to accept this change, which it characterized as "material." In January, 1988 MPC advised PLM that it considered the contract terminated by mutual consent (TR 658). Subsequent letters reflect that during February, 1988 MPC reconsidered its decision to terminate the contract, and began working with PLM to arrive at a second amendment to the contract. MPC insisted that PLM provide an explanation of how the project had again become feasible, and expressed concern that PLM was seeking to significantly postpone its milestone dates (TR 659-660). In March, MPC offered a second amendment to PLM (TR 660). On March 25, 1988 a second amendment to the PLM contract was signed, which bought out the PLM project for \$200,000. (TR 660-661)

In March, 1986 MPC also agreed to amend its contract with Perkins Power by providing for a new "expected" operation date (TR 653). In July, 1987 another amendment to the Perkins contract was signed. This amendment notes that Perkins was unable to meet its "expected" operation date, and set a new operation date (removing the "expected" language) of July 1, 1988. (TR 653). The amendment also noted that it was necessary for the developer to provide some assurances that it would meet its new operation date, in order to facilitate MPC's resource planning efforts (TR 654, 646). The amendment also set certain milestones for Perkins to meet, and

noted that the failure to meet these milestones would be cause for termination (TR 654). In August, 1987 MPC contacted Perkins and noted that it had failed to meet the first of its required milestones, and provided notice of MPC's intent to terminate the contract (TR 654-655). In September, 1987 MPC contacted Perkins again and indicated that it had reconsidered its determination to terminate the contract, but added that this determination was conditional upon several factors. The letter also noted that MPC was concerned that Perkins was not making sufficient progress to meet the required operation date (TR 655). In February, 1988 MPC again contacted Perkins, indicating that it was "more concerned than ever" that Perkins would not meet its operation date. (TR 656). That letter also noted that Perkins had failed to meet the conditions imposed upon it earlier, and that termination of the contract is "imminent" (TR 657). On March 30, 1988 MPC paid Perkins \$500,000 to terminate the contract. (See MPC DR MCC 1-15.)

In October, 1986 MPC sent correspondence to the majority of the QF developers. The correspondence noted that all of these developers had either missed their "expected" operation dates or were likely to miss their operation dates, which were then imminent. These letters noted that any amendment to the operation date of the contracts would have to be evaluated to determine whether or not it was a material change (TR 648-650). Among others, these letters were written to Mr. Wayne Nelson, Mr. M.D.

Landers, Red Lodge Limited Partnership, Mr. McPherson, Hydrodynamics (three projects), Painted Rocks Limited Partnership, Montana Ventures, Inc., and Tongue River Limited Partnership (TR 651-652). None of these projects were terminated at this point in time (TR 652). These projects were eventually bought out by MPC. (See MPC DR MCC 1-15.)

The Commission finds that MPC had many opportunities to either terminate these QF contracts, or rewrite the language in those contracts in such a way as to provide a clear right of termination. Despite serious concerns that these contracts "played havoc with resource planning," MPC failed to obtain rights to terminate these contracts due to operational uncertainty, or to exercise the rights it had. The result is an unnecessary buyout expense.

MPC attempts to justify its course of action largely on a letter from Commission staff discussing the Company's options. Yet that letter provides absolutely no excuse for MPC's continuing course of action. Subsequent to this letter, MPC had many opportunities to amend the language, referring to an "expected" operation date. Although in certain instances such amendments were made, MPC then ignored its bargained for right of termination and bought out the developers anyway. Assuming that the staff letter was of any significance prior to 1986, it certainly should not be subsequent to those 1986 amendments. The record in this case is more than sufficient to conclude that the buyout expense should not

have been incurred. The Company's assertions that this program was beneficial in replacing expensive power with cheaper power misses the point. That goal could have been accomplished without incurring the additional \$944,000 expense.

MPC's claim that it was potentially liable for "bad faith" punitive damages in the event of contract termination is unpersuasive. The record in this case demonstrates that MPC exhibited great patience and cooperation with respect to the administration of the QF contracts. MPC points out that "no party has produced evidence that MPC could have been assured of no liabilities had it unilaterally terminated the contracts." Of course, no such assurance can ever be provided. Such a test for determining the recoverability of settlement costs in rates would provide MPC with a virtual guarantee that such costs would always be recovered through rates, thus eliminating incentives for hard bargaining.

Therefore, the Commission finds that the QF buyout costs should not be shouldered by MPC's ratepayers and finds that MCC's proposed adjustment to reduce rate base by \$516,402 to reflect the elimination of all QF buyout costs to be proper in this proceeding.



Bird Plant Excess APFD

In his direct testimony, Mr. Clark of MCC explained that the net depreciated book value of the Bird plant at December 31, 1987, was a negative \$670,150. Therefore, Mr. Clark proposed to return the \$670,150 of excess accumulated provision for depreciation to ratepayers over two years, requiring an increase in rate base of \$335,075.

In his rebuttal testimony, Mr. Reardon of MPC disagreed with Mr. Clark's proposed adjustment. He indicates that both the 1977 depreciation study and the 1983 depreciation study update included a negative net salvage amount for the Bird Plant, and that MPC should be allowed to recover through depreciation expense the cost of the plant investment less net salvage. According to Mr. Reardon, this should be recovered from customers that have received service from that plant investment. Mr. Reardon states that the depreciation MPC has recorded per books and the depreciation expense that has been reflected in customer rates has properly included the negative net salvage factor associated with the Bird plant. (MPC Exh. 32, pp. 2-3)

The Commission generally recognizes negative net salvage value as a part of depreciation rates when circumstances warrant such reflection. However, the Bird plant situation has significantly changed such that including a negative net salvage value in depreciation rates is no longer appropriate. The uncertainty over possible refurbishment of the Bird plant and the

overall effects of those changes on the plant lead the Commission to find that the previously reflected negative net salvage value for the Bird plant is no longer appropriate. The salvage value of the Bird plant could quite easily be altered or eliminated due to refurbishment. Therefore, the Commission finds MCC's proposed adjustment to increase MPC's rate base by \$335,075 to reflect the return of \$670,150 of excess accumulated provision for depreciation to ratepayers over two years is proper in this proceeding.

#### Indirect Costs Capitalized

In his direct testimony, Mr. Clark of MCC proposes to eliminate indirect costs the Company is expensing for book and ratemaking purposes but capitalizing for tax purposes. This proposed adjustment results in a decrease in rate base of \$643,512. Mr. Clark bases his proposal on Commission Order No. 5236c in Docket No. 86.11.62, which he believes requires that these items be capitalized for ratemaking purposes as well as for tax purposes. (MCC Exh. 6, pp. 34-35)

In his rebuttal testimony, Mr. Pederson of MPC disagrees with Mr. Clark's proposal to capitalize indirect costs for ratemaking purposes to the same extent as they are required to be capitalized for income tax purposes. He argues that Mr. Clark's proposal would be a burden to the customers, since it allows for both a recovery of costs plus a return. He states that it has long been the practice of MPC with respect to self-constructed property

to include, as a cost of that property, the direct labor incurred in construction including a portion of the cost for time not worked (vacation) and associated payroll taxes. The Tax Reform Act of 1986 requires that the cost of self-constructed property not only include direct costs, but also an allocable portion of indirect costs. As a result, MPC capitalizes more costs for tax purposes than for book purposes, and Mr. Pederson says that, in accordance with PSC Order No. 5236c, the additional tax expense that results in the current period is not allowed to be charged to customers. He maintains that Mr. Clark's approach would cause rates in a few years to be higher than they otherwise would be. (MPC Exh. 34, pp. 6-8)

The Commission believes that tax provisions should not dictate proper ratemaking treatment. However, capitalizing indirect costs for ratemaking purposes provides a good matching. Ratepayers will pay for these costs over time in correlation with receiving the benefits from the operation or use of the asset that was constructed and caused these indirect costs to be incurred. The Commission, therefore, finds MCC's proposed adjustment to increase rate base by \$702,857 to reflect the capitalization of indirect costs to be proper in this proceeding.

Storm Damage Reserve and Injuries and Damages Reserve

In his direct testimony, Mr. Clark of MCC indicates that MPC has reduced its proposed rate base by the average balances of the storm damage reserve and injuries and damage reserve net of the related accumulated deferred income taxes. He agrees that the ratepayers ought to be relieved from paying a return on customer contributed capital, but he feels that the Company's proposals are not appropriate for ratemaking as a complete mismatch among the components occurs. Therefore, Mr. Clark proposes to use actual 1987 balances for the reserves and the related accumulated deferred income taxes, adjusting the actual 1987 deferred tax expense to reflect the reduced Federal income tax rate. Mr. Clark contends that MPC has failed to demonstrate why 1987 needs to be "normalized" other than for the change in the tax rate. This proposal results in a decrease in rate base of \$306,327 for storm damage reserve and a decrease in rate base of \$436,466 for injuries and damages reserve. (MCC Exh. 6, pp. 37-39 and Late-Filed Exh. AEC-13)

Alternatively, Mr. Clark says that he believes the Company's proposal should be adjusted to reflect the negative deferred tax expense used in the calculation of the rate base deduction, resulting in no change in rate base and a reduction in the Company's proposed deferred tax expense of \$346,095. (MCC Exh. 6, p. 39)

In his rebuttal testimony, Mr. Pederson of MPC disagrees with Clark that there is a mismatch of components and that the deferred tax debit is overstated for the injuries and damages reserve. He states the deferred tax that MPC has included in rate base is the amount of income tax cost paid by MPC that is associated with these reserves and has not been charged to customers through rates. He says MPC erred by not recording this deferred income tax on the corporate books until December, 1987, when the proper correcting entry was made. He also disagrees with Clark that this deferred tax ought to be lower in the test period to reflect the reduced federal income tax rate. He reasons that reflecting the adjustment in the test period cost of service would have caused expenses to be higher due to a reduction of deferred tax asset resulting in a charge against current income. (MPC Exh. 34, pp. 10-11).

Mr. Pederson's explanation in his rebuttal testimony leads the Commission to agree with his assertions on this matter. Therefore, the Commission finds that the Company has properly addressed the issue of storm damages reserve and injuries and damages reserve and disallows MCC's proposed adjustments.

#### Pensions and Benefits Reserve - Benefit Restoration Plans

On December 23, 1986, MPC established two Benefit Restoration Plans. One was for 20 Senior Management Executives (SME PLAN), the other for 14 Directors of the Company (BD PLAN). As of

August 1, 1988, three additional Senior Management Executives and two additional Directors were receiving benefit payments from these plans. According to MPC these plans are intended to address limits placed on the amount which individuals can receive from a defined benefit plan. The Company stated that senior management personnel are projected to receive lower benefits at normal retirement age (age 65) than an employee who is at a lower salary level (this is measured as a percentage of retirement income versus final compensation).

Any officer or senior executive selected by the chairman and chief executive officer and approved by the Board is eligible for the SME Plan. Eligibility for the BD PLAN is all Board members.

Participation in the SME PLAN requires a pretax salary reduction for a period of 60 months. The amount of the reduction is based upon the participant's compensation. Participation in the BD PLAN requires a pretax fee reduction of \$75 a month for a period equal to the lesser of 60 months or the time remaining until the Director retires or terminates.

At page 9 of his rebuttal testimony, MPC witness Pederson stated that the Company's ratemaking recommendation is that the costs of the plan (accruals for payments to participants) be included as an item of cost of service, but that the investment in life insurance contracts be excluded from rate base and the

earnings on these investments be excluded from the regulated portion of the income statement.

MCC witness Clark recommended that the expense associated with the Benefit Restoration Plans be eliminated. Mr. Clark stated at line 13, page 13, of his direct testimony:

It appears to me that the plan for employees is simply designed to increase retirement benefits above the limitations imposed on defined benefits retirement plans and defined contribution retirement plans by the Employee Retirement Income Securities Act of 1974 ("ERISA").

On line 3, page 14, Mr. Clark voiced a policy concern with the Benefit Restoration Plans:

As a matter of public policy, it is not equitable to ask ratepayers to bear the additional costs associated with the provision of retirement benefits that exceed the ERISA limitations.

Mr. Clark gave a further reason for his recommended disallowance of expenses for the Benefit Restoration Plans at line 1, page 15, of his direct testimony where he quotes from the 1987 FERC Form 1, filed by MPC:

Life insurance is carried on each Plan participant in favor of the Company to fund the Plan. Participants in the Plan contribute to the cost of life insurance carried by the Company. The Plan is designed so that if assumptions made as to participant contributions, mortality experience, policy dividends and other factors are realized, the Company will recover its cost of this plan.

In PSC Data Request No. 184, the Company was asked if proportionate equalization had been applied to every MPC utility

employee for which equalization is an issue, what would the expense and income tax effects have been in this filing, assuming a full year of participation? The answer was:

Studies with respect to benefit restoration plans have been limited to those who are currently participating in the Plans. No other studies have been prepared with respect to this issue.

MPC filed rebuttal testimony on the Benefit Restoration Plans by witnesses Pederson, Reardon and Neill. The rebuttal testimony of Mr. Pederson is noted in Finding of Fact No. 88 above.

Mr. Neill argued that the Company's pension plan results in unequal treatment to senior executives in that, for personnel at higher pay levels, the retirement benefit is a much smaller percentage of their final compensation than it is for benefits for employees at lower levels. Mr. Neill noted that other utilities have plans of a similar nature: Alamitio/Catalyst Energy; Houston Industries; Idaho Power Company; Northwest Natural Gas; Ohio Edison Company; Otter Tail Power Company; Portland General Electric; Questar Corporation and Southern Company Services. However, MPC was unable to determine the rate treatment given these plans by regulators. Finally, Mr. Neill indicated that the Company believes this plan would be very useful in attracting and retaining quality management.

MPC witness Mr. Reardon stated that Mr. Clark used an incorrect subaccount to calculate his number. Mr. Reardon also stated that Mr. Clark eliminated the expense associated with the



Benefit Restoration Plans and in addition, reduced the rate base by the reserve associated with the Benefit Restoration Plan. The Company indicated that it is improper to eliminate both the expense and to reflect the reserve balance in rate base.

The Commission agrees with MPC that if expenses associated with the Benefit Restoration Plan are excluded, it is not appropriate to reduce rate base to reflect the reserve balance.

In response to MCC Data Request 10-1, MPC supplied a copy of a 1986 BENVAL report which was prepared by a consulting firm. MPC provided this study as support for the decision to implement the Benefit Restoration Plans. The study covered 20 companies including the Montana Power Company. Seven of the firms were major Northwest Electric Light & Power Association (NELPA) utilities, six were large western utilities and seven were major Pacific Northwest companies. Since the 1984 study MPC's overall benefit program improved slightly from 19th overall to 18th. The 1986 study showed MPC's overall benefits to be 11.9 percent below the average. The pension plan comparison showed MPC to be 18th out of 20.

While not at the upper end of firms included in the BENVAL study, MPC has moved up slightly since the last study. Also, MPC's ranking is affected by which companies are included in the study. There is no evidence in this Docket that low pension benefits have resulted in excessive turnover among senior management personnel.

MPC has been very direct in explaining that the SME PLAN is only for senior management personnel. As a general principle, the Commission does not favor such plans absent a compelling reason to implement them. Broad employee participation in compensation plans is generally held to be an excellent means of motivation.

MPC noted that the Tax Reform Act of 1986 limited the benefits that senior management could receive from a qualified benefit plan. The Company makes much of the fact that this element of the Tax Reform Act is merely a revenue producing measure. ERISA provisions are important and in this instance, provide that the Benefit Restoration Plans are not qualified plans under IRS rules.

The legislative history of that Act indicates the purpose of the benefit ceilings:

General reasons for change

\* \* \*

At the same time that some individuals have been questioning the relatively low level of tax deductible contributions for H.R. 10 plans, others have questioned the wisdom of permitting virtually unlimited pension benefits in corporate plans to be funded out of tax-free dollars.

Your committee recognizes the importance of tax incentives in creating a strong private pension system. At the same time, however, your committee believes it is appropriate to provide some limitations to prevent the accumulation of corporate pensions out of tax-sheltered dollars which are swollen completely out of proportion to the reasonable needs of individuals for a dignified level of retirement income. Moreover, by imposing limitations on corporate plans, and liberalizing the limitations which are imposed

under present law on H.R. 10 plans, the bill takes a long step forward to achieving tax equity in this area. Thus, the bill provides, in general, that a qualified trust may not provide a defined benefit in excess of \$75,000 a year, or 100 percent of the employee's average high-3 years of compensation (whichever is less) and that contributions to a qualified money purchase pension plan, profit-sharing plan or stock-bonus plan may not exceed \$25,000 a year, or 25 percent of the employee's annual compensation (whichever is less). 1974 U.S. Code Cong. & Ad. News 4777.

The Commission has found no evidence in this proceeding to support these plans in lieu of the current ERISA limitations, and in light of the legislative history of those limitations, as described above. As pensions should not be funded beyond the ERISA limits with tax dollars, as a policy matter, the Commission also believes the same is true for regulated rates. Therefore, the Commission accepts the adjustment by MCC witness Clark to remove \$434,568 in expenses associated with the Benefit Restoration Plans.

Consistent with the Commission's findings above concerning the proper rate base treatment related with the exclusion of these expenses, the Commission finds that accepting MCC's expense proposal results in no adjustment (\$0) to MPC's rate base.

Cash Working Capital

In his direct testimony, Mr. Clark of MCC notes that MPC's cash working capital requirement included in its proposed rate base is based upon the one-eighth of O&M expenses (adjusted) formula that has been approved by the Commission for many years. Mr. Clark outlines his disagreements with that formula and proposes that MPC not be permitted to increase its rate base to reflect an allowance for a cash working capital requirement. He also proposes that the use of a lead/lag study be adopted for future cases as a much more accurate method of measuring the need for this adjustment. Mr. Clark's proposed adjustment results in a decrease in rate base of \$250,616 (MCC Exh. 6, pp. 40-48).

In his rebuttal testimony, Mr. Reardon of MPC disagrees with Mr. Clark's proposed elimination of all cash working capital from rate base. He defends the formula method as being approved by the Commission and preferred by the FERC. Also, he estimates that the cost to conduct a lead/lag study currently would be about \$100,000. Mr. Reardon concludes that the Company has calculated cash working capital by using the exact method the Commission has determined for MPC in previous decisions (MPC Exh. 32, pp. 5-6).

The Commission agrees with MPC that in this filing the Company has used the method approved in the past to determine cash working capital. Use of this formula has, as previously recognized by MCC, been an appropriate method of determining the cash working capital requirement. The Commission finds no evidence in this

proceeding to show that MCC's proposed adjustment to the Company's cash working capital is proper in this proceeding. Therefore, the Commission rejects Mr. Clark's proposed reduction to rate base in the amount of \$250,616. Consistent with the method proposed by MPC and approved by the Commission in this proceeding, the Commission finds an adjustment to increase rate base in the amount of \$530,833 to reflect the approved adjustments in this Final Order to be proper in this proceeding.

However, several points raised by Mr. Clark prompt the Commission to request that further attention be given to this matter in its next general rate filing. First, several of the assumptions used in the formula method appear to be questionable under current circumstances (MCC Exh. 6, pp. 40-42). Second, the formula itself may not be providing a complete picture of the working capital held by the Company (MCC Exh. 6, pp. 43-44). Third, most of the other major utilities operating in Montana either do not claim such a requirement, or perform a lead/lag study (MCC Exh. 6, pp. 44-45).

The Company's primary concern appears to be the expense involved with performing a lead/lag study. This would be the cost of hiring a consultant to perform such a study (TR Vol. V, p. 1249). However, Mr. Reardon testified that once a study was put together, it could be revised with some modifications, and that the Company could gain the expertise to make the necessary adjustments (TR Vol. V, p. 1249). For consecutive proceedings, the parties and

the Commission have spent a great deal of time on this issue. In light of the concerns raised by MCC with the formula method, the Commission believes that a lead/lag study may be useful, if only as a check upon the accuracy of the formula method. At a minimum, such a study may assist the parties and the Commission in determining whether a working capital adjustment is necessary, and whether that adjustment is positive or negative.

Therefore, the Commission requests MPC, in preparation for its next general rate filing, to conduct a lead/lag study to determine cash working capital requirements and to present the study and its findings in that filing. At that time, the Company can seek appropriate treatment for the cost of performing the lead/lag study. The Commission notes that the range for the cost of such a study seems to be between \$30,000 (MCC) and \$100,000 (MPC).

Of course, MPC will be free to propose whatever method of determining cash working capital requirements the Company believes is appropriate. The lead/lag study must be made available for inspection by all interested parties, who will also have the opportunity to make any recommendations. Following analysis of such comments and recommendations, the Commission will evaluate the lead/lag study and its findings to determine any future possible use in subsequent rate cases.

Mr. Pederson of MPC explained that the Customer Information System (CIS), the largest computer-based system developed for MPC, is designed to allow the Company, even at all of its remote locations, to access customer data. One of the purposes of this system is to interact with customers' requests in a timely fashion with current data. CIS also will allow the Company to replace its billing system and will allow the Company to both gather and access, over time, more information about its customers in order to serve them better (TR Vol. V, pp. 1283-1284).

Mr. Pederson described CIS as much more than a mere computer software package because CIS changes the way MPC operates. He indicated that MPC bought a system from a utility in Iowa to use as a framework to build a system for MPC. MPC then built CIS by adding functions and writing it in more modern languages than the Iowa company had done (TR Vol. V, p. 1284). Mr. Pederson stated that he hopes it is really a long time in the future before CIS is replaced, and he expects several modifications to CIS to occur over time (TR Vol. V, pp. 1285-1286).

Mr. Pederson referred to MPC's response to Data Request PSC-390, where it states that MPC's own analysis of the projected annual benefits of CIS as a result of realized efficiencies in operational and network savings is estimated at about \$5.9 million on a recurring basis. He agreed that the Corporate Information System plan identified that amount of benefits, and he also agreed

that the Company does indeed believe that CIS will achieve substantial benefits (TR Vol. V, pp. 1286-1287).

Mr. Pederson concurred with MPC's response to Data Request PSC-390 that CIS was put into use in May of 1988 and became completely operational in December of 1988. When asked if the benefits are reflected in this proceeding, Mr. Pederson stated that no benefits are reflected (TR Vol. V, pp. 1287-1288).

Mr. Pederson provided a general description of the Financial Management System (FMS). He explained that a few years ago MPC determined that its current general accounting system should be enhanced and replaced so that MPC could provide its users with better and more timely information. MPC then bought a package from a firm in Georgia to meet that goal. Parts of that system have been implemented to date and other parts are being tested for implementation (TR Vol. V, pp. 1293-1294).

Mr. Pederson agreed that FMS is basically similar to CIS in that it is not a typical computer software package of limited duration of usage. However, he pointed to certain difficulties the Company has been experiencing with FMS that caused him to state he does not feel as confident about the long-term use of FMS compared to that of CIS (TR Vol. V, p. 1294).

Concerning the potential annual benefits of FMS, Mr. Pederson agreed that MPC had once estimated those benefits to be about \$1.1 million per year, as noted in Data Request PSC-392. When asked for his response to an updated annual benefits figure



for FMS of \$9.3 million, as noted in Data Request PSC-501, Mr. Pederson expressed doubt that the Company would actually be experiencing that level of benefits due to a lack of major construction activity. He also stated that the Company did not experience any attainable level of benefits from FMS in this proceeding, and no benefits are reflected in this filing (TR Vol. V, pp. 1295-1296).

As explained in the Company's response to Data Request PSC-501, FMS is a combination of three separate systems (Project Tracking, General Ledger and Fixed Assets). Project Tracking became operational in mid-1988, but the Company will not consider FMS as fully operational until each subsystem is implemented. Mr. Pederson also stated that none of the operational benefits associated with the Project Tracking portion of FMS are reflected in this proceeding (TR Vol. V, p. 1297).

Based on the available, though mostly projected, information about CIS and FMS, the Commission views both CIS and FMS as positive steps taken by the Company in improving service and operating efficiency. Hopefully these systems will indeed enjoy a very long and successful usefulness for MPC and its customers, and ratepayers should eventually reap the benefits of cost savings, cost reductions, and revenue enhancements.

However, despite the positive feelings the Commission has at this point in time for CIS and FMS, the Commission finds the Company's proposal to saddle its ratepayers with all costs associated with CIS and FMS without reflecting any benefits in this

proceeding is highly inappropriate. MPC's own studies show that benefits of millions of dollars on an annual basis can be expected to occur, and Mr. Pederson of MPC agreed that such benefits should indeed be realized. The Commission finds that approving MPC's proposal to include costs associated with CIS and FMS while not including any benefits would cause a grave mismatch that would give ratepayers unfair treatment. Also, as explained by Mr. Pederson, FMS is not even fully operational and will not be for quite some time. This means that MPC is asking for rate treatment for a system that does not meet the used and useful test, even during the period for which these rates will be in effect.

Other unknowns about CIS are the effects of this system on MPC's budget billing balances and cash working capital requirements. Under cross-examination by Mr. Baker, Mr. Pederson of MPC said that he does not expect the budget billing balances to change much after CIS is fully implemented (TR Vol. V, p. 1290). The Commission respects the opinion of Mr. Pederson, but clearly the effect of CIS on budget billing balances will not be known until a subsequent proceeding when pre- and post-CIS comparisons of those balances can be made.

As noted in Data Request PSC-391, MPC states in its 1987 Expense Budget book that one of the benefits of CIS is increased cash flow. In its response to Data Request PSC-391, MPC notes:

Actual effects on cash flow will not be available until sufficient time for a complete

recording, separation and determination of the accuracy of projected effects are quantified. To ensure a high degree of reliability an extended period of system operation will be required to develop an accurate picture of the actual effects of CIS on cash working capital.. (MPC Response to Data Request PSC-391)

This response indicates another example of a mismatch of costs and benefits of CIS, if only the costs of CIS were reflected in this case. Uncertainty of the effects of both CIS and FMS permeates all discussions of these systems and leads the Commission to find that inclusion of these costs would be premature and contrary to the known and measurable standard of proper ratemaking.

One of the approaches the Commission could have taken in determining this issue would have been to order MPC to capitalize all costs associated with CIS and FMS. In fact, in Interim Order No. 5360a in this Docket, the Commission approved just such an adjustment stating, "Cost associated with long-lived computer programs (the Customer Information System and the Financial Management System) should be capitalized rather than being charged to expenses." That adjustment reduced MPC's gas revenue requirements by \$138,136. (Interim Order No. 5360a, Docket No. 88.6.15, Finding of Fact No. 3, part C.)

Another approach the Commission could have taken in determining this issue would have been to attempt to satisfy the matching principle requirements by imputing the benefits of CIS and FMS noted in Data Requests PSC-390, PSC-391, PSC-392, PSC-499, and

PSC-501 to offset the costs of CIS and FMS. The Company believes the potential benefits of CIS and FMS are real, which would seem to justify imputing these benefits to match the related costs of CIS and FMS proposed by MPC in this proceeding. The Commission, however, finds this approach unacceptable in this proceeding because some of the benefits referred to in Company documents have a wide range of possibilities and others are not quantified at all.

The Commission does not believe that any rate treatment for costs associated with CIS and FMS would be proper in this proceeding given the matching, known and measurable, and used and useful problems discussed above. In a subsequent proceeding, when MPC can demonstrate that matching of costs and benefits has occurred and that the systems are fully implemented, the Commission will consider the proper ratemaking treatment for CIS and FMS.

Therefore, based on the above discussion and the Company's updated response to Data Requests PSC-499(a) and PSC-501(b), the Commission finds that all costs included in this filing associated with CIS and FMS are disallowed in this proceeding. This action results in a reduction in rate base in this proceeding in the amount of \$905,830 for CIS and \$1,102 for FMS, for a total rate base reduction of \$906,932. The Commission will consider the costs of CIS and FMS when both actual costs and benefits of these software programs can be matched together. At that time, the

Commission will consider the overall proper ratemaking treatment for these unique, long-term computer software systems.

1987 and 1988 Computer Software Updates

On the witness stand, MPC witness Reardon discussed the Company's proposal in his rebuttal testimony to eliminate 1982 and 1983 computer software plant cost and replace it with the 1987 and 1988 computer software plant cost (TR Vol. IV, p. 1231). Under cross-examination by Mr. Nelson, Mr. Reardon explained that the total 1987 and 1988 capitalized costs of CIS and FMS are \$4,727,955 (unallocated between gas and electric), which includes \$73,000 for 1987 and \$4.6 million for 1988 computer software costs (TR Vol. IV, pp. 1234-1235). Mr. Reardon then explained that the reason the 1988 total is so much larger than the 1987 total is due to the CIS program (TR Vol. IV, p. 1235). Mr. Reardon also agreed that at least part of the \$73,000 for 1987 should already have been included in MPC's original pro forma rate base (TR Vol. IV, p. 1235).

Consistent with the Commission's decision in this proceeding concerning CIS and FMS costs, the Commission finds that all costs associated with CIS and FMS in the numbers proposed by Mr. Reardon for 1987 and 1988 computer software additions must be eliminated. The Commission finds that the remaining costs may be included in rates in this case since 1982 and 1983 computer software costs were eliminated. In determining the proper amounts

to be included for rate treatment, the Commission uses MPC's updated response to Data Request MCC10-16, which also shows the proper amount of 1987 computer software costs that should be added to rate base. Therefore, the Commission finds the increase in rate base in the amount of \$231,665 to reflect the addition of 1987 and 1988 computer software costs, excluding CIS and FMS, to be proper in this proceeding.

#### Approved Rate Base

As a result of the Commission determinations in the above Findings of Fact, the Commission finds MPC's approved electric rate base in this proceeding to be \$838,469,132 on a total Company basis. The resulting Montana jurisdictional approved electric rate base in this proceeding is \$805,345,063, based on the results of the REC Jurisdictional Allocation Study.

### PART D

#### REVENUE REQUIREMENTS

All adjustments discussed below are made to MPC's originally proposed pro forma levels of revenue and expense items as shown in Column G of MPC witness Harper's Exhibit CRH-1 Revised, page 3 of 6, which was presented in her rebuttal testimony.

These figures are all based on a test year of the 12 months ended December 31, 1987, adjusted for known and measurable changes.

#### Colstrip 4 Issues

128. This section of the Order presents the position of each party on various issues relating to MPC's proposal to purchase 74 MW of power from Colstrip 4. Issues are presented by topic. Within each topic, party's proposals are presented in chronological order starting with initial testimony and ending with supplemental rebuttal testimony. Because of changes in testimony, proposals and prices appearing in initial testimony may be updated by proposals submitted in later testimony.

129. Real Vs. Nominal Prices: Nominal levelization expresses cost in terms of the actual dollars that are paid over time, and include the effects of inflation. Costs that are levelized in real terms do not include the effects of inflation; meaning that the dollars that are paid over time increase with the rate of inflation. Most prices presented and proposed in this proceeding are expressed in nominal, or nominally levelized terms. For example, all proposed values for Colstrip 4 are presented in terms of nominally levelized mid-year 1989 values. However, to avoid confusion, all nominal values will be designated as nominal values, or be followed by "(n)." Similarly, all real values will be designated as real values, or be followed by "(r)."

### Load and Resource Plans

130. MPC's proposal to purchase 74 MW of Colstrip 4 Lease Management Division (CS4LMD) power is based upon a need for resources identified in MPC's Projection of Electric Loads and Resources (L&R Plan, or Plan). The L&R Plan shows MPC's projections of capacity and energy loads and its resource strategy for accommodating new and existing loads over a 22-year forecast period. Additionally, the L&R Plans are used to develop avoided cost prices for Qualifying Facilities (QFs), and are the basis for MPC's valuation of the proposed Colstrip 4 power purchase. MPC's prefiled proposals are based on its 1988 L&R Plan, while its rebuttal proposals are based on its 1989 L&R Plan.

### Load Forecast Proposals

131. MPC Load Forecast Model: MPC uses a load forecasting model to estimate future demand and energy loads on its system for purposes of resource planning. The result of the load forecasting model is included as the top line of each of MPC's L&R Plans.

132. MPC's load forecasting model is made up of four modules including; 1) sales forecast, 2) resource scheduling, 3) offsystem sales, and 4) electricity pricing modules.

133. The sales forecast module develops annual sales forecasts for five major classes of customers: 1) residential, 2) general service, 3) industrial, 4) industrial contract, and 5) other loads. Residential, commercial and industrial loads are forecast using



econometric models, while industrial contract loads are forecast by consulting with individual customers. Other loads, like irrigation and special contracts are forecast using a variety of techniques ranging from econometric models to trend analysis (1988 L&R Plan).

134. The resources scheduling module matches electricity production to resource needs as determined by the sales forecast model. Excess energy is passed into the off-system sales module. The off-system sales module simulates the sale of surplus energy in the off-system market. Off-system sales revenues are then passed to the pricing module. The pricing module simulates a revenue requirement rate case and designs new class revenue requirements. The new class revenue requirements are passed on to the sales forecast module where customer response is measured by the increase in average prices and the next year's sales level is forecast.

135. Peak demand estimates are derived from aggregate annual energy consumption. MPC uses monthly energy models to distribute annual energy consumption to months. Monthly peak models are then used to determine monthly system peak loads. (MPC RDR PSC-64)

136. Completing the calculations in all four modules produces load growth for one year of the forecast period. This calculation is repeated for each year of the 22-year forecast, resulting in MPC's load forecast.

137. MCC Load Forecast Proposals: Based on its analysis, the MCC concludes that MPC has overstated energy and capacity requirements in its L&R Plans. MPC uses a peak of 1,286 MW with

energy of 881 Mwa for determining revenue requirements, while its load forecasting model estimates 1987 consumption at 1,361 MW peak and 893 Mwa energy. (Exh. MCC-1, p. 15)

138. MCC points out that the difference in these two values is caused by the different techniques used to develop each set of values. The peak and energy values used to determine revenue requirements are developed from actual 1987 loads which are adjusted for abnormal weather, billing cycle effects, and other accounting adjustments. The energy and peak values used in the electricity forecast model are developed from the econometric models.

139. MCC argues that MPC's Base Case electricity forecast is further overstated due to the exogenous variables MPC elected to use in its model. (Exh. MCC-1, p. 15) MCC observes that MPC's load forecasts are driven primarily by: 1) service territory population, 2) nonfarm disposable income, and 3) an industrial production index. (Exh. MCC-1, p. 18) MCC submits that those variables are overstated when compared to actual short-term trends, and concludes that it is "equally appropriate" to use MPC's Low Case L&R Plan. (Exh. MCC-1, p. 20)

140. MCC proposes avoided cost analysis based on adjusted load forecasts. (see FOF 215) For avoided cost Cases 1-5, MCC uses a forecast based on test year loads and MPC's 1989 Base Case forecast load growth rates. MCC's Case 6 avoided cost analysis is based on

test year loads and MPC's 1988 Low Case forecast load growth rates. (Exh. MCC-3, p. 12)

141. DNRC Load Forecast Proposals: DNRC states that it finds MPC's econometric forecast to be reasonable: "The variables included in the equations are appropriate, and the estimated coefficients have the expected signs." (Exh. DNRC-1, p. 12) DNRC also supports MPC's use of the exogenous variables chosen as input variables to the electricity forecast model, stating that they are generally appropriate. (Exh. DNRC-1, p. 12)

142. MPC Rebuttal: MCC argues that MPC's Low Case growth forecast matches current trends more closely than the Base Case forecast. (FOF 139) MPC asserts that the short-term similarities between the Low Case growth forecast and historical variables does not warrant the use of the Low Case L&R Plan. (Exh. MPC-12, pp. 5-7) Mr. Leland states that a long-term forecast must encompass both near-term and long-term perspectives, arguing that basing a long-term forecast on near-term trends can lead to inaccurate results and that long-term trends must be considered when making long-term forecasts. (Exh. MPC-12, p. 2)

143. MPC argues against the MCC's proposal to use actual test-year load data for load forecasting. MPC argues that test-year loads are short-term in perspective, and while appropriate for determining test year revenues, they are not appropriate for use in a long-term forecast. (Exh. MPC-12, pp. 9-10) MPC asserts that its econometric models, which are long-term in nature, are more

appropriate for determining long-term load growth. Finally, MPC insists that there is no inconsistency in using test-year loads for revenue requirements and forecast loads for load forecasting because they are developed using different methodologies and are used for different purposes. (Exh. MPC-12, p. 10)

144. DNRC Supplemental Rebuttal: DNRC recommends that the Commission disregard MCC's proposal to adjust MPC's load forecasts, (see FOF 140) arguing that MCC's recommendations are not based on statistical or econometric analysis. (Exh. DNRC-4, pp. 2-3) DNRC states: "I am aware of no widely accepted forecast technique that allows moving a forecast growth path up or down to an arbitrary starting point". (Exh. DNRC-4, p. 3) Rather, DNRC argues that to change the results of a forecast, the forecasting model must be changed or constrained to produce the desired result. (Exh. DNRC-4, pp. 5-6)

#### Resource Proposals

145. MPC Resource Proposals: MPC's 1988 L&R Plan contains several changes in resource levels when compared to MPC's 1987 L&R Plan. The largest change in the 1988 Plan is the elimination of QF resources. Other resource changes include the addition of an energy exchange contract with Idaho Power, and the addition of several tentative hydro upgrades.

146. MPC's Base Case L&R Plan shows an increased need for new resources. A large portion of this need is attributable to a reduction in QF resources due to the Company's negotiation and

settlement with nine QF projects. Mr. Worring indicates that MPC was successful in terminating 14 of 19 projects targeted for elimination. The 14 terminated projects represent a contracted capacity of 42.49 MW and 33.3 MWa energy.

147. MPC proposes reducing QF resources further by assigning a probability of development to all remaining QF projects. Mr. Leland indicates the probability that a QF project would be developed was determined from the Company's knowledge and understanding of each project. If the probability of development for a project turned out to be less than 50 percent, the project was eliminated from the Plan. (Exh. MPC-10, p. 11) MPC's proposal to reduce QF resources based on a probability of development eliminated one QF project from the Plan; an 11 MWa development by Cogen Tech. (MPC RDR MCC 1-39) Lastly, MPC notes that normal contract administration reduced QF resources by another 4.7 MWa. (Exh. MPC-10, p. 11) In total, MPC's 1988 Plan shows a reduction in QF resources of approximately 49 MWa from levels listed in the 1987 Plan.

148. Resource levels have also changed from the 1987 Plan to the 1988 Plan. One change is a ten year energy-for-energy exchange contract MPC recently signed with Idaho Power. Under that contract, MPC receives 50 average MW for 90 consecutive days in the period of November 15 through February 12, and pays back 75 average MW for 60 consecutive days in the period of June 15 through

September 15. MPC also includes several hydro upgrades under the category "Tentative Resources." MPC indicates that it considers these upgrades to be more cost effective than other known resource alternatives. (Exh. MPC-10, p. 12)

149. MPC indicates that changes to the 1987 Plan resulted in a need for resources. The electric utility proposes that this need be met through a 22-year power purchase arrangement involving part of MPC's share of Colstrip 4. (Exh. MPC-10, p. 12) MPC also indicates that the purchase will ease the financial burden that Colstrip 4 has placed on MPC as a corporation. (Exh. MPC-5, p. 19)

150. MPC acknowledges that it has previously represented it would not bring Colstrip 4 to the Commission for rate treatment. However, Mr. Neill contends its present proposal is not inconsistent with MPC's earlier representations, because the Company is not asking for rate base, cost-recovery treatment of Colstrip 4. (Exh. MPC-5, p. 20) Instead, MPC is proposing that Colstrip 4 be treated like a power purchase with a price determined by the Utility's avoided cost. Mr. Neill states that basing the cost of the proposed Colstrip 4 power purchase on the Utility's avoided cost, "assures that, over the term of the purchase, customers pay no more than they would have paid without the purchase." (Exh. MPC-5, p. 21) MPC also justifies the proposed purchase on the basis that Colstrip 4 is an existing resource which cannot be deferred and may be lost to Montana consumers. (Exh. MPC-16, p. 16)

151. MCC Resource Proposals: MCC proposes several changes to MPC's loads and resources, including changes to forecast loads and existing resource levels. The proposed changes alter MPC's L&R Plan, in turn affecting the avoided cost value of Colstrip 4 power.

152. MCC proposes increasing hydro capacity from 518 MW to 520 MW. MCC notes that it recommended the same adjustment in Docket No. 84.11.71, and the Commission adopted that proposal. (Exh. MCC-6, p. 50)

153. MPC lists the Corette thermal generation plant, located in Billings, at 151 MW of peak capability for planning purposes. (1987 Plan, 1988 Plan) Corette has an original plant rating of 180 MW, but MPC reduced its rating based on operating limitations imposed by mass emission standards. (MPC RDR MCC 1-53) MCC recommends that Corette's capacity rating be increased to a level that it has actually attained recently, which is 170 MW at 6:00 A.M. on Sunday, February 6, 1988. (Exh. MCC-6, p. 51)

154. MCC also recommends that Colstrip 3 capacity be increased from 210 MW to 216 MW in the L&R Plan. Colstrip units 3 and 4 are operated by the MPC Utility as a single unit, of which MPC has a 210 MW share of each unit. MCC notes that the capacity loading on Colstrip 3 and 4 combined has exceeded 420 MW for each monthly system peak from August of 1987, to December of 1987, a period of time when both units were running. MCC argues: "This is an instance when historical actual use should be a factor in the

decision because we know that the unit is capable above 210 MW on peak." (Exh. MCC-6, p. 53)

155. An accounting stipulation segregates CS4LMD from the rest of MPC's electric facilities, so that MPC ratepayers do not bear any Colstrip 4 costs. (Exh. MCC-6, p. 58) Under the stipulation, firm sales categorized as "other" sales, are allocated to the Utility and CS4LMD based on a ratio of surplus capability of the two units. In the stipulation, Colstrip 3 is assigned a rating of 210 MW, while Colstrip 4 is assigned a rating of 216 MW. (Exh. MCC-6, p. 60) MCC argues: "At the very least, we need parity for Colstrip #3". (Exh. MCC-6, p. 53)

156. MCC's proposals increase MPC's peak capabilities by a total of 27 MW. Accordingly, MCC proposes that MPC's reserve requirement be increased by 15 percent for the increase in thermal capacity, and 5 percent for the increase in hydro capacity. (Exh. MCC-6, p. 53)

157. MCC also proposes that energy resources be adjusted by increasing the capacity factors of Corette, Colstrip 1, 2 and 3. MCC points out that MPC has used higher capacity factors for purposes of determining revenue requirements than those used in the L&R Plan to determine avoided costs. (Exh. MCC-6, p. 54) MCC argues for an equitable balance and consistency between revenue requirements and avoided costs; testifying that higher capacity factors increase MPC's revenue requirements, while lower capacity factors for loads and resources increase avoided costs. (Exh. MCC-



6, p. 54) In order to maintain a balance, MCC recommends increasing Corette, Colstrip 1, 2, and Colstrip 3 energy to the levels listed in Table 1 below.

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Table 1

MCC Peak and Energy Resource Proposals

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<u>Facility</u>	<u>Capacity</u>	<u>Capacity Factor</u>	<u>Energy</u>
Corette	151 MW	80.6%	137 MWa
Colstrip 1&2	330 MW	80.0%	264 MWa
Colstrip 3	216 MW	84.3%	182 MWa
<u>Hydro</u>	<u>520 MW</u>	64.4%	<u>335 MWa</u>
Total:	1,217 MW		918 MWa

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158. Based on its analysis, MCC concludes that MPC will not need capacity until the 1995/96 operating year under the Base Case Plan. Under the Low Case Plan, MPC would not need capacity until the 1996/97 operating year. (Exh. MCC-1, p. 21)

159. DNRC Resource Proposals: DNRC's resource proposals concentrate on the level of conservation resource listed in MPC's

L&R Plan. DNRC proposes conservation resource levels based primarily upon work completed by MPC, and the NWPPC.

160. DNRC conservation proposals are based on how much conservation resource could be obtained if MPC were willing to pay up to the value of the Colstrip 4 power purchase, or 47.2 mills (not specified if nominal or real). (Exh. DNRC-5, pp. 4-6) DNRC points out that if conservation costing up to 47.2 mills is acquired the average real levelized cost of the package is about half the cost proposed for Colstrip 4, or 23.2 mills/kwh. (Exh. DNRC-5, pp. 18-19) DNRC indicates that its methodology is similar to that of MPC, but MPC only determines the amount of conservation which could be obtained for a real levelized cost of 19.3 mills/kwh. (Exh. DNRC-5, pp. 5-6)

161. MPC's conservation analysis includes residential space heat, domestic hot water, the commercial sector, the industrial sector, irrigation, and a catch-all category called "Other." DNRC expanded upon this analysis, including the contract industrial class, the retrofit of clothes washers and dishwashers, and the impact of appliance standards on refrigerators, freezers, and fluorescent light ballasts. Additionally, DNRC indicates that while MPC only looks at improving the efficiency of existing loads, its analysis looks at improvements in existing and new loads. (Exh. DNRC-5, pp. 6-7)

162. DNRC indicates that the results of its analysis identify conservation resources totaling 47.1 MW, roughly one-third higher

than estimated by MPC. (Exh. DNRC-5, p. 14) DNRC indicates that this conservation can be acquired for a real levelized cost of 23.2 mills/kwh, without any customer contributions. (Exh. DNRC-5, pp. 18-19) These conservation levels are then incorporated in determining an appropriate range of values for Colstrip 4 power purchase. A discussion of those proposals is included in a later section. (FOF 185-191)

163. NPRC Resource Proposals: NPRC does not propose any specific changes to MPC's L&R Plans. However, NPRC notes that the MCC has provided testimony with proposals that reduce load forecasts and increase existing resource capabilities. (FOF 137-139, 151-157) NPRC also notes that DNRC has presented testimony identifying substantial conservation resources at prices less than the proposed Colstrip 4 power purchase. (Exh. NPRC-2, p. 24) Additionally, NPRC explains that MPC may be able to purchase additional conservation resources from public utility districts via BPA. Finally, NPRC refers to the Company's agreement with HRDC creating a least-cost planning committee, indicating that such a committee offers potential for improved planning, priorities, and alternatives. Given these developments, NPRC advises the Commission against approving a 74 MW purchase, which could foreclose potentially more cost-effective planning options and resource acquisitions. (Exh. NPRC-2, p. 25) Rather, NPRC recommends that the Commission approve a smaller purchase of 25 MW of Colstrip 4 power at a 22 year nominally levelized cost of 35.0

mills/kwh, or a 15 year nominally levelized cost of 33.4 mills/kwh.

(Exh. NPRC-2, p. 26-27) NPRC's specific pricing recommendations are presented in later sections. (see FOF 226, 241-248)

164. MPC Rebuttal Resource Proposals: In direct testimony, MCC recommended that MPC's hydro resource capacity be increased by 2MW. (FOF 152) MPC states that the 2MW reduction is required because the Kerr generation station cannot achieve its peak in the winter because its pond is not full. (Exh. MPC-12, p. 22) MPC states:

It is true that in any particular year, the total hydro system generation during the winter peak may be 520 MW. However, it is also true that the hydro system generation during the winter peak may be significantly below 518 because of icing conditions on the Missouri river. (Exh. MPC-12, p. 22)

165. MPC depicts MCC's proposal to increase Corette's peak capability to 170 MW (see FOF 153) as unrealistic, arguing that Corette has only achieved that level of capacity for only one hour in the past three years of operation. MPC indicates that in preparing to rebut MCC's proposed thermal capabilities, it conducted a thorough review of historic generation capabilities for each thermal plant. (Exh. MPC-12, pp. 12-14)

166. MPC calculated Corette's peak capability using the average daily peak for 1987 and 1988, as taken from the dispatch logs. MPC indicates that 1987 and 1988 represent a period which reflects the current and expected future capability of the plant,

and that abnormally low peak days were omitted from the analysis. MPC calculated the plant capacity factor for Corette by adding dispatch limitations to actual generation for 1987 and 1988, and dividing the result by 8,760 times plant capability. Based on this analysis, MPC recommends that the peak capability of Corette be set at 156 MW with a capacity factor of 87 percent, or 124.8 average MW. (Exh. MPC-12, pp. 16-17)

167. MPC determined the peak and energy capabilities for Colstrip 1 and Colstrip 2 using monthly plant production data from January, 1985 through November, 1988. (Exh. MPC-12, p. 19) MPC states this time period was selected because it accurately represents the existing and future capabilities of Colstrip 1 and Colstrip 2. The energy capabilities for Colstrip 1 and Colstrip 2 were developed with the same methodology used to determine Corette's energy capability. Based on this analysis, MPC proposes a peak capability of 158.5 MW with a capacity factor of 78 percent, or 123.6 average MW, for each unit. (Exh. MPC-12, pp. 18-19)

168. MPC calculated Colstrip 3 peak capability using data from January through November, 1988. MPC states that its analysis indicates that Colstrip 3 peak capability should be higher than the 216 MW proposed by MCC. However, MPC adds that from an engineering standpoint, the unit should not be operated above 216 MW.

169. MPC determined the energy capability for Colstrip 3 using data from 1984 through 1988, and the same methodology used for Corette and Colstrip units 1 and 2. However, MPC excluded data

from 1985, 1986, and 1987 from its analysis since there were major outages in those years. On the basis of 1984 and 1988 data, MPC proposes that the Colstrip 3 plant factor be set at 78 percent. (Exh. MPC-12, p. 20) Based on this analysis, MPC proposes that Colstrip 3 peak capability be set at 216 MW with a capacity factor of 78 percent, or 168.8 average MW. (Exh. MPC-12, p. 21)

170. Table 2 below shows MPC's prefiled thermal resource proposals along with MCC's proposals and MPC's rebuttal thermal resource proposals.

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Table 2

Proposed Thermal Generation Capabilities

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<u>Proposal</u>		Peak <u>(MW)</u>	Energy <u>(MWh)</u>
<u>MPC Prefiled:</u>	Corette	151	116
	Colstrip 1&2	330	254
	Colstrip 3	<u>210</u>	<u>161</u>
	Total	691	531

<u>MCC Proposed:</u>	Corette	170	137
	Colstrip 1&2	330	254
	Colstrip 3	<u>216</u>	<u>182</u>
	Total	716	573
<u>MPC Rebuttal:</u>	Corette	156	124.8
	Colstrip 1&2	317	247.2
	Colstrip 3	<u>216</u>	<u>168.4</u>
	Total	689	540.4

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171. Table 2 shows that MCC's recommendations would increase thermal peak generation capabilities by 25 MW, and energy capabilities by 42 Mwa. MPC argues that a review of historic generation levels shows that MCC's proposals are not realistic. Rather, MPC proposes that peak generation capabilities be decreased by 2 MW, and energy capabilities increased by 9.4 Mwa from its prefiled proposals.

172. MCC Response to MPC Rebuttal: MCC indicates that it did not see any need to address Colstrip 1 and 2 capacity in direct testimony. However, MCC did propose increasing the energy capabilities of each of these units from 126.5 Mwa to 132 Mwa. MCC argues that the historic production levels at Colstrip 1 and 2 cannot necessarily be regarded as the capability of those units.

Rather, MCC argues that MPC may have voluntarily restricted the output of these units due to the surplus of energy in the region at that time. Furthermore, MCC argues that MPC is using data and methodology which has not been subject to critical review. For these reasons MCC recommends that Colstrip 1 and 2 be included in the resource plan at levels proposed in direct testimony; 165 MW and 132 Mwa for each unit. (Exh. MCC-7, pp. 9-10)

173. MCC does not agree with MPC's rebuttal proposal to set the energy capability of Colstrip 3 at 168.4 Mwa. Rather, the witness continues to recommend the use of an 84 percent capacity factor, or 182 Mwa. MCC argues that this is a reasonable energy level in light of the fact that MPC's rebuttal proposals list the Colstrip 4 purchase at 85 percent capacity factor and both units are run as a single project. (Exh. MCC-7, p. 12)

#### Avoided Cost Valuation of Colstrip 4

174. The Commission requires that electric utilities offer avoided cost payments to QFs. Utilities are also required to submit an annual avoided cost filing in compliance with Order Nos. 5017, 5017a and 5091c. The purpose of this compliance filing is to update a utility's avoided cost prices and tariffs to reflect current load and resource conditions.

#### MPC Avoided Cost Proposals



175. On July 8, 1988 MPC filed with the Commission its 1988 Annual Compliance Filing for Electric Avoided Cost Based Rates for Public Utility Purchases from Qualifying Facilities. In its filing, MPC proposes two sets of tariffs for long-term QF power purchases. The first set of tariffs is for those QF projects coming on-line prior to the purchase of Colstrip 4 Division power.

The second set of tariffs is for those projects coming on-line after the purchase of Colstrip 4 Division power. (AC Compliance Application, p. 1)

176. MPC's filing in this proceeding requests approval of a 74 MW purchase of Colstrip 4 power at a cost determined by "avoided cost." The Commission, in its Procedural Order, found the Annual Avoided Cost Compliance filing to be, "inextricably intertwined," with MPC's proposal to purchase Colstrip 4 Division power. Accordingly, the Commission consolidated MPC's 1988 avoided cost compliance filing into Docket No. 88.6.15. (Consolidation and Procedural Order, FOF 25)

177. BPA NR Rate: BPA publishes its forecast of the BPA NR rate under three scenarios, high, medium and low growth rates. In past avoided cost compliance and cost of service filings, MPC used the BPA medium NR rate as a proxy for the cost of unspecified acquired resources. In this filing, MPC proposes using an average of the high, low and medium rates. MPC argues that while Order No. 5091c requires that the BPA NR rate be used, but it does not require the use of a specific forecast: "MPC is using the average

of the forecasts because it gives a better estimate of what MPC will have to pay for future resource." (Exh. MPC-9, p. 8) Furthermore, MPC states that the average was selected because it represents the broadest measure of possible sources of power for the region and the associated costs. MPC indicates that the average of the forecasts is used to capture the cost of a diverse spectrum of resources. (MPC RDR PSC-441)

178. Unit Specific Avoided Costs: MPC states that: "The basic principle followed by the Utility was that it would pay no more for Colstrip Unit #4 power than it would pay for alternative long-term resources." (Exh. MPC-16, pp. 9-10) MPC establishes the avoided cost value of Colstrip 4 using the unit specific methodology, concluding that this methodology insures that, "MPC customers are indifferent, in terms of price, to the resource supplying power." (Exh. MPC-16, p. 10)

179. MPC's unit specific avoided cost calculation is similar to the default tariff calculation which determines the value of 10 MW of free power. However, instead of using a predetermined 10 MW resource, the unit specific method places the specified resource into the calculation. For the proposed Colstrip 4 power purchase this is a 74 MW resource coming on-line in 1989. (Exh. MPC-10, p. 18) The unit specific valuation is based upon a Base Case L&R Plan that does not include the resource to be valued. The introduction of 74 MW of Colstrip 4 Division power into the Base Case Plan affects the timing of resources in the resource plan, and

the plan is re-optimized to account for the new resource, resulting in the Change Case L&R Plan. (Exh. MPC-9, p. 11) Including 74 MW of "free" power allows the Company to defer or cancel other resources. The revenue requirements associated with difference in the revenue requirement associated with the Base and Change cases represents the value of Colstrip 4 Division power. Most of these savings occur due to the deferral of upgrades to the Frank Bird plant and hydro plants, and the lessening of the Company's need to purchase BPA NR power. (Exh. MPC-10, p. 16)

180. MPC's prefiled testimony proposes a nominal levelized avoided cost price for Colstrip 4 of 46.71 mills/kwh based on MPC's unit specific avoided cost methodology. (Exh. MPC-5, p. 17) MPC's proposal separates the purchase into fixed and variable components.

The fixed cost portion of the contract is constant over the life of the contract, while the variable portion is subject to escalation according to various indices. MPC is asking the Commission to approve this escalation feature of the proposed Colstrip 4 Division power purchase as well.

181. MPC states that allowing the Utility to acquire Colstrip 4 power at avoided costs yields the "double benefit" of acquiring a resource at avoided cost, and acquiring the resources on which avoided costs were based at a later date. (Exh. MPC-10, p. 15) However, MPC indicates that the value of this double benefit has not been quantified. (MPC RDR LUIG 2-28)

## MCC Avoided Cost Proposals

182. MCC's avoided cost analysis incorporates its load forecast and resource proposals presented earlier. (FOF 137-139, 151-157) Additionally, MCC's analysis reflects fuel and purchased power costs that are adjusted to reflect the lower energy and peak requirements. The analysis also reduces emergency and economy purchases to zero for all years of the Plan. (Exh. MCC-1, p. 23)

183. MCC notes that MPC forecasts higher generation from Corette in its Change Case Plan than its Base Case Plan, and argues that the result seems counter-intuitive in light of the fact that there is a free 74 MW addition of power from the Base to Change Case. (Exh. MCC-1, p. 23) Therefore, MCC's avoided cost analysis increases coal unit generation in the Base Case plan be increased to the same levels as the Change Case Plan. (Exh. MCC-1, p. 24, Dir)

184. Using the Base Case Plan growth rates, MCC calculates the nominally levelized avoided cost value of Colstrip 4 at 39.36 mills/kwh. Under the Low Case growth assumptions, the avoided cost value of Colstrip 4 falls to 24.13 mills/kwh (n). Both of these values reflect the use of an average of BPA NR rates. However, upon further review of MPC's use of an "average" BPA NR rate, MCC concludes:

Based on a review of the underlying basis for the BPA medium NR forecast, the medium forecast actually is better tied to BPA's own expectations of the future than are the high and low forecasts. (MCC RDR PSC-320)

#### DNRC Avoided Cost Proposals

185. DNRC's avoided cost proposals are based on variations of the input assumptions to MPC's PROMOD and CER models. DNRC provided MPC with various scenarios of resource levels, and MPC provided DNRC with the avoided cost value of Colstrip 4 for each scenario.

186. DNRC disagrees with MPC's proposal to average BPA's High, Medium and Low Growth forecasts of the BPA NR-87 rate, stating that the weighted average does not reflect BPA's expectations of its future rates. (Exh. DNRC-1, p. 20)

187. DNRC's scenario 1, assumes that: 1) MPC acquires DNRC-identified conservation; 2) the BPA peak/energy exchange contract is renewed under present terms; 3) MPC hydro upgrades and Bird renovation are brought on line as needed; 4) MPC builds the Salem plant as needed (MPC's share assumed to be 165 MW); 5) MPC builds up to 125 MW of Combustion Turbines (CT); and 6) the BPA medium NR-87 rate is used. Under Scenario 1, the amount of BPA purchases is reduced dramatically. However, BPA resources are replaced by more

expensive resources, increasing the nominally levelized avoided cost value of Colstrip 4 to 59.32 mills/kwh.

188. Scenario 2 is the same as Scenario 1, except that both Salem and 125 MW of CT power are not built. Rather, MPC purchases more BPA power at the medium NR-87 rate. The levelized avoided cost value of Colstrip 4 under this scenario is 37.14 mills/kwh (n). (Exh. DNRC-1, p. 22)

189. Scenario 3 represents MPC's proposed avoided cost calculation, except that DNRC-identified conservation is included in MPC's L&R Plan. This reduces the avoided cost value of Colstrip 4 by about 3 mills (n). (Exh. DNRC-1, p. 23)

190. DNRC concludes that conservation will not replace MPC's need for Colstrip 4 power. Additionally, DNRC finds that MPC's 47.2 mills/kwh (n) levelized avoided cost estimate for the value of Colstrip 4 power is reasonable, since it falls within the range of values determined by the alternative DNRC assumptions. (Exh. DNRC-1, p. 23)

191. DNRC recommends that the Commission to find a way to obtain the use of Colstrip 4 power for MPC ratepayers, stating that rejecting the purchase or setting a rate for the purchase which is below the opportunity cost of the leasing division will cause MPC to sell Colstrip 4 outside Montana, increasing long-run costs to ratepayers, and environmental and social costs to the people of Montana. DNRC also argues that ratepayers will face considerably

more financial risk from a decision to reject the sale than from a decision to purchase the power because of the uncertainty associated with future costs of new resources. (Exh. DNRC-1, p. 27)

#### LUIG Avoided Cost Proposals

192. LUIG compares MPC's proposal to "levelize" the Colstrip 4 purchase to a home mortgage in that a lump sum is converted into a uniform series of payments over a given time frame, at a given interest rate. (Exh. LUIG-1, p. 3) However, LUIG argues that the value of Colstrip 4 to ratepayers is not constant, or level, over the life of the purchase. LUIG points out that MPC's proposal to levelize the Colstrip 4 purchase has the effect of smoothing out the volatility in the avoided cost value of Colstrip 4. LUIG stresses that only if MPC's forecasts are 100 percent accurate will ratepayers be "economically neutral" over the levelized 22-year life of the contract. (Exh. LUIG-1, p. 4) LUIG contends that the risks associated with MPC's assumptions should be borne by MPC, not its ratepayers. (Exh. LUIG-1, pp. 4-5)

193. Based upon its review of MPC's PROMOD workpapers, LUIG concludes that the acquired peak load in the PROMOD workpapers is overstated in both the Base and Change cases, noting that the acquired peaks listed in MPC's response to MCC 1-49 do not match those used in PROMOD. The result is that the avoided cost value of Colstrip 4 is overstated. (Exh. LUIG-1, pp. 5-6)

194. LUIG does not agree with MPC's proposal to average BPA's High, Medium and Low Load Forecasts of the NR-87 rate, stating that:

In all prior compliance filings, the Commission has directed MPC to use the medium growth scenario for the BPA NR rate in its avoided cost methodology. In averaging three BPA forecasts to obtain its preferred forecast, MPC has changed from a prior PSC-approved methodology without explanation. This change in the established and approved methodology has not been sufficiently justified. (Exh. LUIG-1, p. 10)

195. Based on its analysis and proposals, LUIG calculates that the nominally levelized avoided cost value of Colstrip 4 is 28.59 mills/kwh. However, LUIG recommends that Colstrip 4 payments be based on the unlevelized avoided cost value for each year of the purchase. Under the LUIG proposal, prices start at 10.23 mills/kwh (n) in 1989 and eventually increase to 92.26 mills/kwh (n) in 2010. (see FOF 233)

#### F. L. Tavenner Avoided Cost Proposals

196. Mr. Tavenner asserts that a least cost electric resource plan is possible only if all types of resources are considered in the process. He suggests that there are several alternative energy



resources from which a substantial amount of energy can be acquired, and that the most effective way to develop these alternative energy resources is to establish and maintain an appropriate avoided cost rate tariff. (Exh. FLT-1, pp. 2-5)

197. MPC filed two sets of avoided cost tariffs in conjunction with its 1988 Avoided Cost Compliance filing. The first set of tariffs is for QFs coming on-line prior to the final order in this proceeding, and the second set is for QFs coming on-line after the Colstrip purchase is approved. (see FOF 175) Mr. Tavenner argues that because of the timing of the QF buy-out and the consolidation of QF tariffs into this proceeding, QF developers will not be given an opportunity to receive the same prices that MPC is proposing to pay for the Colstrip 4 resource:

If the high avoided cost rates exist only when utilities are prepared to supply the power, and for such short periods that only utilities who file the rates can respond, then there is effectively no avoided cost rate for QFs, and consequently there is no

least-cost resource plan. (Exh. FLT-1, p. 9)

#### MPC Rebuttal to Intervenors

198. BPA NR Rate: Several intervenors testified that it is inappropriate for MPC to use an average BPA NR rate. (FOF 184,

187-188 and 194) MPC justifies its use of an average NR rate, stating that the rate is used to serve as a proxy for unspecified resource, and not necessarily a purchase from BPA:

MPC has not yet fully assessed what combination of resources will be used to serve that segment of load growth presently covered by NR purchases in the resource plan. In development of its regional resource plan, BPA has done a thorough analysis of the resources available in the region. The average NR rate reflects an analysis of a broad spectrum of resources. (Exh. MPC-9, p. 2)

Furthermore, Mr. Stauffer argues that an average of the NR forecasts should be used because, in most cases, it will cost more for MPC to acquire the same resource as BPA, due primarily to differences in capital costs and tax differences. (Exh. MPC-9, p. 2)

#### MPC Rebuttal Avoided Cost Proposals

199. MPC's rebuttal testimony contains avoided cost proposals which represent significant departures from proposals contained in prefiled testimony. Additionally, the proposed Colstrip 4 power purchase is presented in rebuttal testimony as the MOU. Changes in avoided costs will be presented first, followed by changes in the contract as contained in the MOU.

200. Changes to Avoided Costs: MPC's prefiled testimony proposes a nominally levelized avoided cost value for Colstrip 4 of 46.71 mills/kwh. This value was corrected in response to data requests, resulting in a levelized avoided cost of 47.2 mills/kwh (n). (MPC RDR MCC 1-49) MPC's rebuttal testimony contains several revisions to avoided costs which reduce the levelized avoided cost of Colstrip 4 to 42.28 mills/kwh (n). (Exh. MPC-12, p. 29)

201. First, MPC corrects an error in acquired peak that was identified by LUIG. (FOF 193) MPC's second correction revises Bird plant refurbishment costs to correct for capital costs that were double counted in the original filing. Additionally, MPC indicates that there was an error in the Bird plant depreciation schedule in the original filing. (Exh. MPC-7, p. 28)

202. MPC proposes several new adjustments to avoided costs as well. The first change lowers MPC's marginal cost of capital from 11.41 to 11.02 percent. Second, MPC proposes to use its recently completed 1989 Loads and Resources Plan (1989 L&R Plan, or 1989 Plan). Third, MPC included future changes in the Corette and Colstrip coal contracts. Fourth, MPC proposes including updated hydro construction expenditures in its analysis. Fifth, the cost of forced outage reserves for the proposed 74 MW Colstrip 4 power purchase are included in the analysis (forced outage reserves had been the responsibility of the Colstrip 4 Lease Management Division prior to the Memorandum of Understanding (MOU)). MPC states that

the cost of forced outage reserves is accounted for in the avoided cost calculation of the value of Colstrip 4.

203. Shortly after filing rebuttal testimony, MPC indicates that it discovered another error in the calculation of the avoided cost value of Colstrip 4. MPC indicates that it discovered an error in the acquired energy for the year 1996-1997 in the Change Case. Correcting for this error changes the 22-year levelized avoided cost value of Colstrip 4 from 42.28 mills/kwh to 42.16 mills/kwh (n).

204. Memorandum of Understanding: In rebuttal testimony, the terms and conditions of the Colstrip 4 contract are contained in a document called the MOU. MPC states that the major difference between the MOU and MPC's original proposal is a "price reopener" in the seventh year of the contract. MPC states that the reopener is fair, and that without it, at the lower price, MPC would lose Colstrip 4 as a resource. (Exh. MPC-6, p. 15)

205. The reopener provision in the MOU requires that the contract be reopened in the seventh year and that the value of the proposed Colstrip 4 power purchase be recalculated. The MOU specifies that the recalculation is to use, "the same avoided cost methodology as that which resulted in the avoided cost value of Colstrip Unit #4 to the Utility determined in January 1989." (Exh. MPC-19, p. 11) The price of the Colstrip 4 purchase would then be adjusted accordingly at the reopener. MPC states that: "The

utility would also have the option to terminate the contract at that time; however, CS4LMD would not have the option to terminate". (Exh. MPC-18, p. 30)

206. The 22 year forecast payment stream specified in the MOU is designed around a nominally levelized price of 42.16 mills/kwh (n). (TR p. 235) However, the MOU specifies that the payment stream be "tilted" with prices beginning at 34 mills/kwh (n) and ending at 77.61 mills/kwh (n) in the year 2010. (Exh. MPC-19, Exhibit C, p. 1) MPC indicates that the rate was tilted to reduce the costs in the early years of the contract to better reflect market conditions. (Exh. MPC-18, p. 29)

#### MCC Rebuttal Avoided Cost Proposals

207. MCC's rebuttal testimony addresses DNRC's direct testimony and MPC's supplemental testimony. DNRC's testimony emphasizes the risk to the Utility of not accepting the proposed Colstrip 4 power purchase. (FOF 191) Additionally, MPC states that the proposed purchase has benefits which exceed the cost of the alternative, Base Case plan. (Exh. MPC-11, pp. 6-7) MCC disagrees with this perception of the Colstrip 4 purchase. MCC states that these arguments focus on the uncertainty of acquiring resources in the future, while ignoring the risk inherent in MPC's own projections for the need of the capacity. (Exh. MCC-2, p. 3) MCC argues that MPC's forecasting approach has inherent risks as well, and that these risks should be taken into account when

assessing the value of the proposed Colstrip 4 power purchase. (Exh. MCC-2, p. 5)

208. MCC also addresses the opportunity cost of the proposed Colstrip 4 power purchase. MCC indicates that the opportunity costs for MPC Utility ratepayers may differ from Colstrip 4 Lease Management Division's opportunity costs. MCC argues that MPC's opportunity to sell the capacity and energy at a higher price off-system does not mean that ratepayers should pay any more than necessary for the resource: "MPC's retail ratepayers would still be obligated to pay no more than the cost of the resources that would be relied upon as substitute for this purchase." (Exh. MCC-2, p. 8)

209. DNRC's analysis includes a Salem based resource scenario. (FOF 187) MCC rebuts the Salem scenario, stating that under the Salem scenario, DNRC assumes that MPC will acquire resources which are more expensive than MPC's own opportunity costs. MCC concludes that the Salem scenario is "extreme," and that it should be rejected by the Commission. (Exh. MCC-2, p. 17)

#### NPRC Rebuttal Avoided Cost Proposals

210. NPRC disagrees with DNRC's "range of reasonableness" analysis. (FOF 190) NPRC argues that the goal of least cost planning is to minimize the present value revenue requirement to ratepayers, not to develop a range of values to determine whether

the proposed price is below the upper bound of that analysis. NPRC argues that MPC is not planning to build Salem and points out that MPC is using BPA NR only as a proxy for unspecified resources. (FOF 198) NPRC argues that the DNRC's analysis proves that the Salem plan is significantly more expensive than either BPA NR purchases or DNRC-identified conservation. NPRC argues that the DNRC's Salem scenario even exceeds the levelized fully distributed costs of the Colstrip 4 power plant . (Exh. NPRC-3, pp. 6-7)

211. NPRC characterizes the chances that the Advisory Committee would recommend a Salem based resource plan, or that MPC would pursue such a plan as slim to none. Additionally, NPRC argues that the Salem scenario is inconsistent with least cost planning principles, stating that he would expect the DNRC to advocate conservation resources, rather than Salem, under such a process. (Exh. NPRC-3, p. 7)

212. NPRC concludes that the Salem scenario does not represent a least cost resource plan, nor does it have any bearing on the appropriate value for the proposed Colstrip 4 power purchase. NPRC urges the Commission to reject DNRC's Salem scenario, negating DNRC's conclusion that the proposed Colstrip 4 power purchase is within the range of reasonableness. (Exh. NPRC-3, p. 9)

213. Avoided Cost Proposals: MCC concludes that MPC's rebuttal proposed study continues to: 1) understate existing generation plant capabilities, 2) overstate peak and average energy loads, and 3) overstate avoided costs due to the techniques used to estimate the fuel and purchased power components. MCC argues that its proposals presented in initial testimony remain valid for MPC's rebuttal testimony. Those changes included proposals to use test-year loads for load forecasting, to base resource capacity on actual performance, and to examine the appropriateness of using MPC's Low Case L&R Plan. (FOF 137-139, 151-157)

214. MCC also argues that MPC's criticism of its proposal to use test-year loads as the starting point for load forecasting is not valid. MPC argues that it is inappropriate to use test-year loads, which reflect short-term economic conditions, when developing long-term load forecasts. (FOF 143) MCC contends that if the Commission were to accept MPC's logic, it would amount to ignoring short-term forecasts while "blindly" accepting long-term forecasts, when these long-term forecasts greatly influence present costs of service. (Exh. MCC-3, pp. 10-11)

215. MCC presents a range of alternative avoided cost values for the proposed Colstrip 4 power purchase. MCC indicates that these values reflect changes in avoided cost proposed by MPC in rebuttal testimony (FOF 201-217) as well as other changes. In all cases, MCC incorporates its thermal capability proposals. (FOF 151-157) In Cases 1, and 4-6, the MCC uses MPC's proposal to value



unspecified new resources using an average of BPA NR forecasts. Cases 2 and 3 use BPA's medium NR forecast. (Exh. MCC-3, p. 11) Case 1 uses MCC's proposed test-year loads as the basis for load forecasting and assumes that test-year loads will grow at the same rate as the MPC proposed Base Case load forecast presented in its rebuttal testimony. MCC's Case 4 includes excess energy above the contracted 82 percent capacity factor. Case 5 looks at the impact of capping fuel price escalation at 5 percent in any one year. Finally, MCC's Case 6 includes test-year loads for purposes of load forecasting, combined with the lower load growth rate of MPC's Low Case forecast. Table 3 below shows the resulting avoided cost values for the six MCC proposed cases.

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Table 3

MCC's Response A.C. Values for Colstrip 4

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<u>Case</u>	<u>Avoided Costs</u>
1	31.74 mills/kwh
2	29.44 mills/kwh
3	28.24 mills/kwh
4	31.30 mills/kwh

5	31.64 mills/kwh
6	26.68 mills/kwh

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216. MCC recommends that the Commission consider accepting a levelized avoided cost for Colstrip 4 in the range of 26.68 to 31.74 mills/kwh (n). MCC also recommends that the Commission assign a value to the proposed Colstrip 4 power purchase no greater than the upper range of its analysis. Additionally, MCC adopts MPC's proposal to tilt the purchase to that prices are lower in the initial years of the purchase. (Exh. MCC-3, p. 18)

217. Memorandum of Understanding: MCC argues that the MOU subjects ratepayers to "tremendous" risk of increased payments. Therefore, MCC recommends that, "the Commission disallow any expenses in this case which would stem from the operation of the MOU". (Exh. MCC-3, p. 6) Additionally, MCC states that, "it is surprising that MPC would agree to such a provision, especially when they recognize the reduction in value that would be caused by the price reopener, as stated in their response to DNRC No. 4-03". (Exh. MCC-3, p. 25) MCC notes that the MOU;

represents a fundamental change in the agreement...It is a concession by the utility which results in an inferior product and makes the purchase even less attractive than it was. MPC has

acknowledged this in its response to Data Request PSC 1-436. (Exh. MCC-7, p. 17)

MCC does not believe that the reopener provision is appropriate, arguing that the provision, wrapped in the guise of ratepayer protection, was included because the CS4LMD desired it.

#### DNRC Response Avoided Cost Proposals

218. Avoided Cost Proposals: In direct and rebuttal testimony DNRC relied on avoided cost scenarios using BPA NR rates. (FOF 187-188) Initially, DNRC supported using the medium NR forecast rather than an average NR rate. In response testimony DNRC asserts that the BPA NR rate is inappropriate for MPC to use as a proxy for the cost of power that may be available from other sources. DNRC explains that the problem with using BPA NR is that MPC is ineligible to purchase all of its future needs from BPA, and that the resources currently used in projecting the NR rate are mainly existing resources. (Exh. DNRC-3, pp. 4-5)

219. DNRC argues that the use of the BPA NR rate for estimating the avoided cost value of Colstrip 4 is inappropriate, claiming that: "If using the NR rate is inappropriate, MPC's avoided cost would be higher than presently estimated by these parties." (Exh. DNRC-3, p. 2)

220. DNRC contends that the NR rate was used as a proxy for the cost at which purchased power would be available in the future. (Exh. DNRC-3, p. 2) However, DNRC explains that under the provisions of the Pacific Northwest Electric Power and Conservation Act (Act), as interpreted by BPA, only a third of MPC's service area lies within the Northwest region. Therefore, MPC would only be able to place an obligation on BPA, at NR rates, for new load growth occurring within the Northwest region, or about one-third of new load. (Exh. DNRC-3, p. 5)

221. DNRC argues that the NR rate is not applicable as a proxy since it relies "more heavily" on the cost of existing resources. (Exh. DNRC-3, p. 6) Thus, it is "highly" unlikely that power will be available in the future at a price that can match this pooled price. Rather, DNRC contends that the cost of future power will be dictated by the bulk power market, which will be driven by the cost of new generation resources. For these reasons, DNRC concludes that the NR rate underestimates the cost of new resources, and that the NR forecast cannot be used as a proxy for the cost of future power purchases. (Exh. DNRC-3, pp. 6-7)

222. DNRC contends that the only avoided cost scenario not severely affected by the use of the NR rate is the DNRC's case 1, which includes construction of 125 MW of combustion turbines and construction of the Salem coal fired generation plant. In direct testimony DNRC indicated that the levelized avoided cost value of the Salem scenario (case 1) was 59.32 mills/kwh (n). (see FOF 187)

Updating the Salem scenario for changes in avoided cost methodology proposed by MPC in rebuttal testimony lowers the DNRC's case 1 to 45.77 Mills/kwh. Because of the NR problem, the DNRC now argues that the DNRC's case 2 and case 3 estimates are too low to use as an avoided cost estimate of the value of Colstrip 4 power. (Exh. DNRC-3, pp. 10-11)

223. For all the reasons outlined above, DNRC asserts that the Salem scenario (case 1), "is the only remaining estimate of the upper bound," of the value of Colstrip 4 to the Utility division. (Exh. DNRC-3, p. 12) DNRC concludes that the rejection of the NR rate as the cost of incremental power, strengthens its conclusion that the currently proposed price of 42.16 mills/kwh (n) is less than the maximum amount that the ratepayers should be willing to pay for the power and be left indifferent. (Exh. DNRC-3, p. 14)

224. Memorandum of Understanding: DNRC is "concerned" with the reopener provision, stating that it exposes the Utility to an unknown amount of risk. DNRC explains that one of the advantages of the original proposal was that it locked in the purchase price at a time when there is a "buyers' market" for power. DNRC argues that this advantage is reduced or lost if the price is subject to renegotiation at a time when the surplus has diminished or disappeared and the value of power is greater. (Exh. DNRC-3, p. 15) Therefore, DNRC recommends that the Commission not approve the reopener provision of the MOU. In the alternative, the DNRC

recommends that the methodology and data used in the recalculation be specified exactly. (Exh. DNRC-3, p. 15)

#### NPRC Response Testimony

225. **Avoided Cost Proposals:** NPRC's response testimony addresses MPC's latest L&R Plan and Colstrip 4 pricing proposals submitted in rebuttal testimony. NPRC submits that MPC's most recent resource plan and calculated avoided cost does not reflect the least cost or opportunity cost to the MPC Utility or its ratepayers. This conclusion is based on analysis of regional market-based proxies and on changes in the input assumptions used in MPC's models. (Exh. NPRC-4, p. 4)

226. NPRC observes that the Commission and the intervenors in this docket are at the mercy of MPC's PROMOD/CER programs to prove avoided cost valuations of differing scenarios. For this reason, NPRC asked MPC to run several more PROMOD runs, using combinations of input assumptions proposed by other parties. NPRC asked MPC to calculate the avoided cost value of Colstrip 4 using the following scenarios:

Case A: MPC's updated assumptions per rebuttal, test-year loads per MCC, apply updated Base Case growth rates to test-year loads per MCC, and MCC proposed resource capabilities. Resulting in an avoided cost valuation of 34.01 mills/kwh (n).

Case B: Case A assumptions, and DNRC Scenario 2 assumptions: Conservation up to 25 mills levelized, extend BPA Peak/Energy exchange, and BPA medium forecast NR-87 rates. (FOF 188) Resulting in an avoided cost valuation of 29.21 mills/kwh (n).

Case C: Case A assumptions, and DNRC Scenario 3 assumptions: Company's assumptions with conservation up to 25 mills levelized. (FOF 189) Resulting in an avoided cost valuation of 34.81 mills/kwh (n).

227. NPRC states that these results must be compared to the best available evidence of market value before a least cost valuation for the proposed Colstrip 4 power purchase can be established. (Exh. NPRC-4, p. 10) NPRC's recommendations on market comparisons from its response testimony are presented in a later section. (FOF 242-248)

228. DNRC Salem Scenario: NPRC provides several arguments to rebut DNRC's Salem scenario. First, NPRC argues that MPC's experience with Colstrip 3 and 4 make it very unlikely that MPC will begin construction of a baseload coal plant in the foreseeable future. Second, NPRC states that the Salem scenario is significantly more costly than MPC's own resource plan. (Exh. NPRC-3, p. 6) Finally, NPRC argues that the Salem scenario is inconsistent with MPC's recent commitment to least cost planning:

I submit that it is almost inconceivable that the Advisory Committee would recommend a Salem based resource plan or that MPC would pursue such a plan. I consider the chances that MPC will share (165 MW) in the construction of a Salem (or like) baseload coal plant in the planning horizon to be "slim to none." (Exh. NPRC-3, p. 7)

229. NPRC concludes that the Salem scenario is only of value in demonstrating that baseload coal plants are not cost effective on the MPC system in the current planning horizon. NPRC argues that the Salem scenario does not represent a least cost plan and does not have any bearing on the appropriate value of the proposed Colstrip 4 purchase. (Exh. NPRC-3, p. 9)

230. Memorandum of Understanding: The MOU specifies that the purchase price of Colstrip 4 be "tilted" so that the purchase is discounted in the early years of the purchase. (see FOF 206) Comparing the first year price of comparable market-based sales to the first year price of the tilted Colstrip 4 purchase (34 mills/kwh, nominal), NPRC recommends that the Commission accept a first year price of 30-32 mills/kwh (n). (Exh. NPRC-4, p. 16)

231. NPRC is concerned that the reopener provision in the MOU may not provide a least cost valuation for Colstrip 4 at year 7, since significant changes may occur in MPC's avoided cost assumptions and methodology by that time. NPRC also argues that



the "internal appeal process" specified in the MOU does not adequately protect the public interest. For these reasons, NPRC recommends that if the reopener provision is approved that the Commission require that the reopener be reviewed in a public process.

#### LUIG Response Testimony

232. LUIG response testimony addresses MPC's tilt proposal contained in the MOU. LUIG considers the proposed levelization and tilt of the contract inappropriate, arguing that any levelization and tilting of the rate should be done to mitigate adverse effects to all parties. (Exh. LUIG-4, pp. 2-3) LUIG contends that MPC's proposed levelization and tilt causes significant up-front overcharges to MPC's customers, transferring risk from CS4LMD to Utility customers through higher rates. (Exh. LUIG-4, p. 4)

233. LUIG states that the price of Colstrip 4 should be based on MPC's actual annual avoided cost. Under this proposal, the contract would not recover more than the value of the power in any one year, making the price adjustment mechanism contained in the reopener unnecessary. (Exh. LUIG-4, p. 6) As a first alternative, LUIG recommends treating the Colstrip 4 purchase as an escalating variable cost rate with no nominal levelization. (Exh. LUIG-4, p. 7) As a second alternative, LUIG recommends modifying the approach used by MPC to value and levelize the purchase. Rather than

levelizing the purchase over 22 years, LUIG proposes levelizing the purchase over two 11 year periods. Under this proposal, the avoided costs value of each 11 year period would be calculated from the beginning of the period, effectively creating two avoided cost purchases of 11 years each. (Exh. LUIG-4, p. 8)

#### MCC Supplemental Rebuttal Avoided Cost Proposals

234. In response testimony, DNRC criticizes the use of BPA NR rates in the avoided cost valuation of Colstrip 4. DNRC contends that using BPA NR is inappropriate because MPC is ineligible to purchase all its future needs from BPA, and that the resource costs used to project the BPA NR rate reflect existing resources more than new resources. (FOF 219-221) MCC argues that these are not valid criticisms upon which to reject the use of BPA NR rates, asserting that DNRC has completely misunderstood the purpose behind the use of BPA NR as a proxy for the cost of future resources.

235. DNRC argues that the NR rate cannot be used because only one-third of MPC service territory lies within the Northwest region. (FOF 218-232) MCC insists that the future NR rates will be determined by regional load growth, BPA resource development, and resource development by other utilities. MCC indicates that to the extent that resource supplies become limited, regional prices will raise, including NR prices. Even though MPC will not be able to place all of its load growth on BPA, BPA will undoubtedly be the largest player in the regional energy market, and therefore set the

regional price for new resources. MCC argues that the price BPA pays for new resources will effectively create a ceiling price for capacity in the region: "Since the NR rate will recover the costs of these new resources, it is appropriate to use the NR rate as the benchmark for estimating avoided costs in the region." (Exh. MCC-4, p. 4)

#### DNRC Supplemental Rebuttal Avoided Cost Proposals

236. DNRC's supplemental rebuttal testimony presents further rebuttal to the MCC's proposal to base load forecasts on test-year loads and use MPC's Low Case growth rates, concluding that neither of these changes is appropriate. Dr. Nordell states; "I am aware of no widely accepted forecasting technique that allows moving a forecast growth path up or down to an arbitrary starting point." (Exh. DNRC-4, p. 3) DNRC agrees that no forecast can perfectly capture the relationship between the quantity demanded and the independent variables in the model. However, while some changes may justify changing the forecast starting point, normal short-term economic cycles do not. Furthermore, DNRC argues that even if there were a justifiable adjustment, applying the MPC's growth rate to a new starting point would be an unacceptable technique to adjust the model. (Exh. DNRC-4, pp. 5-6) DNRC argues that MCC's recommendations should be rejected because no statistical analysis

was used to make the determination that the Low Case forecast better fits MPC's future growth. (Exh. DNRC-4, p. 7)

#### F. L. Tavenner Supplemental Rebuttal Proposals

237. Avoided Cost Proposals: Mr. Tavenner proposes that Colstrip 4 be valued according to the current default avoided cost rates filed in the 1988 avoided cost compliance filing, arguing that the adoption of such a proposal would meet most of the concerns raised by intervenors in this proceeding. (Exh. FLT-3, pp. 4-5)

238. Under Mr. Tavenner's compliance tariff proposal, Colstrip 4 capacity would be paid according to the levelized capacity rate specified in the 1989 QF compliance filing, and the energy rate would be calculated using the escalating energy rate option contained in the tariffs. The witness indicates that under this proposal, the levelized portion of the contract would be 9.4 mills/kwh (n), rather than the 24.14 mills/kwh (n) proposed by MPC. (Exh. FLT-3, pp. 4-5) Mr. Tavenner indicates his compliance rate proposal would allow future changes in avoided costs to show up in the price of Colstrip 4 energy. (Exh. FLT-3, p. 6)

#### LUIG Supplemental Rebuttal Avoided Cost Proposals

239. LUIG continues to argue that MPC's avoided cost valuation is overstated due to MPC's use of average forecast NR rates rather than using the medium forecast rate. (FOF 194) LUIG indicates that using the medium forecast would lower the levelized avoided cost value of Colstrip 4 by approximately 3.08 mills/kwh (n). (Exh. LUIG-2, p. 4)

240. LUIG indicates that the actual capacity cost avoided by the purchase is 3.34 mills (n), rather than the 24.14 mills (n) proposed by MPC. LUIG argues that MPC's proposal to nominally levelize capacity costs in this manner is not an option which has traditionally been available to QFs. Additionally, LUIG argues that MPC's proposal to set the fixed levelized charge at 24.14 mills (n) severely front-loads the purchase price, when compared to MPC's actual avoided costs. LUIG calculates that this overpayment grows to approximately \$50 million in the first seven years of the contract, adding that MPC has not determined how to offset this overpayment. MPC has recognized the overpayment in proposing to tilt the rate to make the early years of the contract more closely match actual avoided costs. However, LUIG contends that this tilting does not make up for the frontloading caused by the levelization process. (Exh. LUIG-2, pp. 4-5)

Market-Based Valuation of Colstrip 4

241. Several parties in this proceeding have proposed that ratepayers should pay no more than "market-based" prices for Colstrip 4 power. The NPRC and DNRC both filed testimony presenting comparisons of recent regional power sales to the proposed Colstrip 4 power purchase. In rebuttal testimony, MPC provides a comparison between the proposed Colstrip 4 power purchase and a proposed sale of Colstrip 4 power to the Department of Water and Power of the City of Los Angeles (L.A.). Additionally, the NPRC and DNRC have provided their opinions of the appropriateness of comparing the MPC-L.A. sale to the proposed Colstrip 4 power purchase.

#### NPRC Market-Based Comparison

242. NPRC recognizes the role that avoided costs have in determining the value of the proposed Colstrip 4 power purchase. However, NPRC emphasizes that the calculated avoided cost represents a ceiling price for Colstrip 4. NPRC notes that while the avoided cost results provide a valuable guide, those results must be compared to other market information. (Exh. NPRC-2, p. 17)

NPRC compares the Colstrip 4 power purchase to two recent power sales contracts: 1) Puget Sound Power & Light's (Puget) proposed purchase of 75 MW of BPA power (BPA-Puget), and 2) Puget's purchase of 75 MW from WWP (WWP-Puget).

243. The BPA-Puget purchase has a first year price of 28.5 mills/kwh, a 1.63 mill increase in 1993, thereafter escalating with the BPA priority firm (PF) rate. (Exh. NPRC-2, p. 17) The WWP-Puget purchase is a 14 to 16 year sale beginning at 31.5 mills, escalating (de-escalating) based upon WWP's average system cost. (Exh. NPRC-2, p. 18) NPRC considers these sales and purchase agreements to reflect a reasonable market value proxy for pricing the Colstrip 4 power purchase. (Exh. NPRC-2, p. 18)

244. Washington Water Power - Puget Sound P&L: NPRC's analysis of the WWP-Puget sale takes the form of four alternative scenarios. In the lowest price scenario, Case I, the NPRC assumes a flat nominal price of 31.5 mills through 1996-97 escalating at 2 percent thereafter. NPRC's highest price scenario, Case V, is a levelization of the ceiling rates contained in the sales purchase agreement. (Exh. NPRC-2, p. 18) However, NPRC argues that the ceiling rates contained in Case V represents an "outer limit" on the price. (Exh. NPRC-2, p. 21) NPRC extends the 15-year WWP proxy values to 22 years using DNRC-identified conservation. (Exh. NPRC-2, p. 21) NPRC argues that such an extension is necessary to make the sale comparable to the proposed 22-year Colstrip 4 power purchase.

245. BPA - Puget Sound P&L: NPRC also presents a real levelized value for the BPA-Puget purchase agreement. NPRC notes that the BPA sale has a five year notice and an energy call back provision, but does not quantify the effect that these provisions

have on the purchase price. As with the WWP sale, the BPA sale is extended to 22 years using DNRC conservation resources.

246. Table 4 below shows the real levelized values proposed by NPREC using the WWP and BPA sales purchase information.

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Table 4  
NPREC's Market-Based Comparisons

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<u>Scenario</u>	<u>Description</u>	<u>Price (mills/kwh)</u>
Case I	WWP-Puget, Low	33.75
Case II	WWP-Puget	35.06
Case III	WWP-Puget	36.38
Case IV	WWP-Puget	38.98
Case V	WWP-Puget, Ceiling	42.83
Case VI	BPA-Puget	33.75
Case VII	DNRC Conservation	28.59

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NPREC believes that WWP Cases I-IV and BPA Case VI represent a reasonable proxy for the pricing of Colstrip 4 power. (Exh. NPREC-2, p. 20)



247. The above analysis leads NPRC to recommend that the Commission approve a smaller purchase of 25 MW of Colstrip 4 power at a 22-year nominally levelized 35.0 mills/kwh, or a 15-year nominally levelized 33.4 mills/kwh. (Exh. NPRC-2, p. 26-27)

248. MPC - L.A. Department of Water Power: The NPRC has also reviewed MPC's sale of Colstrip 4 power to L.A. In response to Commission data requests, NPRC argues that the L.A. sale does not represent the market value of power in the Northwest.

No. In my opinion, the LA sale represents the market value to the S.W. California market, including the effects of the intertie access/transfer capacity limitations. (NPRC RDR PSC-339)

#### DNRC Market-Based Comparison

249. DNRC also presents testimony comparing the proposed Colstrip 4 power purchase to the WWP-Puget and BPA-Puget sales. DNRC recognizes that some of the aspects of the two sales are not directly comparable to the proposed Colstrip 4 power purchase. For example, the BPA contract converts to a power-for-power exchange by 2001, while the WWP contract is only for 15 years. (Exh. DNRC-1, p. 24) DNRC attempted to place these sales on a comparable footing with the Colstrip 4 power purchase by adding BPA NR-87 purchases to the end of each contract. (Exh. DNRC-1, p. 25) Additionally, DNRC

assumes that the WWP contract would escalate at a rate less than the ceiling rate specified in the contract.

250. Washington Water Power - Puget Sound P&L: According to DNRC's analysis, the nominally levelized value of the WWP-Puget sale is 38.13 mills/kwh over 22 years. As an alternate analysis, DNRC changed the escalation of the WWP contract to follow the ceiling rate specified in the contract, and escalated the ceiling rate at BPA levels for another seven years beyond the end of the contract, resulting in a nominally levelized 22-year value of 47.57 mills/kwh. (Exh. DNRC-1, p. 25)

251. DNRC rebuts the NPRC's proposal to allow a smaller (25 MW) purchase of Colstrip 4 power. DNRC argues that if 75 MWs can be purchased at a price which is consistent with the value it has to ratepayers, then it should be allowed. Additionally, DNRC argues that a smaller purchase still leaves part of Colstrip 4 looking for a market, stating that: "The debate over Colstrip 4 has been going on now for at least seventeen years. It is long since time to put this issue to rest." (Exh. DNRC-1, p. 29)

252. MPC - L.A. Department of Water Power: In response to Commission data requests, Dr. Nordell indicates that the L.A. sale does not represent the market value of power in the northwest:

No. The LA sale represents the value of power in a segregated market to which entry is limited by the availability of space on the PNW-PSW intertie. (DNRC RDR PSC-339)

#### MPC Market-Based Comparison

253. MPC rebuts NPRC's market-based analysis of the WWP-Puget and BPA-Puget power sales contracts. Additionally, MPC presents its own market-based comparison using the MPC-L.A. power sale proposal.

254. Washington Water Power - Puget Sound P&L: MPC rebuts the NPRC's analysis comparing the WWP-Puget sale to the proposed Colstrip 4 power purchase. First, MPC states that the NPRC's escalation factors are not based on an assessment of WWP's costs, but are simply pulled out of the air. MPC also rebuts NPRC's proposal to extend contracts using DNRC-identified conservation, arguing that the least cost conservation will be acquired immediately, leaving only high cost conservation available for the future. (Exh. MPC-18, p. 20)

255. BPA - Puget Sound P&L: MPC also criticizes the NPRC's analysis and comparison of the BPA-Puget sale to the proposed Colstrip 4 power purchase. MPC's primary objection to this analysis is on the basis that BPA power is not the same product as MPC power because the BPA contract has an energy call-back provision. As with the WWP-Puget comparison, MPC attacks the NPRC's proposal to extend the contract term by using DNRC conservation. (Exh. MPC-18, p. 16)

256. Pacific Power & Light - Puget Sound P&L: NPRC compares the Colstrip 4 power purchase to PP&L-Puget power sale. (FOF 261)

MPC argues that the 15-year contract is not comparable to the 22-year Colstrip 4 proposal. However, MPC argues that given reasonable price projections, the PP&L-Puget sale compares favorably to Colstrip 4 prices. (Exh. MPC-18, p. 22)

257. MPC - L.A. Department of Water and Power: MPC characterizes the L.A. sale as "truly comparable" to the proposed Colstrip 4 power purchase, indicating that, "it is difficult to imagine a more perfect determination of market value than the L.A. sale for the utility Colstrip Unit No. 4 purchase." (Exh. MPC-7, p. 5) MPC points out that the L.A. contract is: 1) of comparable length; 2) comparable size; 3) competitively determined; and 4) the power supply obligations are nearly the same. (Exh. MPC-7, pp. 3-5)

258. Like the proposed Colstrip 4 power purchase, the L.A. sale is a 22-year power purchase at an 82 percent capacity factor. The L.A. sale is a 105 MW sale while the proposed Colstrip 4 power purchase is 74 MW. MPC asserts that the L.A. contract is the result of a competitive market, noting that the Colstrip 4 Lease Management Division had to compete for the contract with BPA and "at least" two other Northwest utilities. (Exh. MPC-7, p. 5) Therefore, MPC argues that the L.A. sale represents the "market-clearing" price for electricity. (Exh. MPC-7, p. 6)

## DNRC Rebuttal Testimony

259. DNRC rebuttal testimony touches on several of NPRC's direct testimony proposals. In direct testimony NPRC recommended that any purchase of Colstrip 4 power be limited to 25 MW. (FOF 247) DNRC argues that the Commission should not limit the purchase to 25 MW, insisting that the results of PROMOD and CER show that the proposed 74 MW purchase has value to the Utility and its ratepayers. Moreover, DNRC is concerned that approval of a 25 MW purchase would result in the loss of the entire 74 MW resource to another party. (Exh. DNRC-2, pp. 3-4)

260. NPRC proposes to extend the WWP-Puget contract using DNRC conservation. (FOF 244) DNRC argues that the WWP-Puget contract cannot be extended using low cost resources because conservation should be acquired immediately, not after 15 years as NPRC is proposing. (Exh. DNRC-2, p. 8)

## NPRC Response Testimony

261. DNRC's market value analysis extends contracts using BPA forecasts of NR rates. NPRC insists that it is entirely reasonable to use identifiable conservation resources to extend the contracts instead of NR rates. NPRC asserts that using conservation to extend contracts is consistent with the goals of establishing a least cost resource acquisition plan. (Exh. NPRC-3, p. 11)

262. Pacific Power & Light - Puget Sound Power & Light: NPRC's direct testimony compares the proposed Colstrip 4 power purchase to several regional power sales, including WWP-Puget, BPA-Puget and MPC-L.A. (FOF 243-248). NPRC's response testimony includes a market-based comparison of the recent PP&L-Puget power sale contract. The PP&L-Puget contract term is 15 years, and as with previous comparisons, NPRC extends the sale to 22 years using DNRC-identified conservation. NPRC indicates that the resulting market-based proxy established by this analysis is 40.99 mills/kwh (n). (Exh. NPRC-4, p. 20)

#### MPC Compliance with Order No. 5091c

#### MPC Supplemental Testimony

263. Compliance with Finding of Fact No. 285: The Commission requested that MPC file supplemental testimony addressing its efforts to comply with Finding of Fact No. 285. MPC states that since the Commission did not require a competitive bidding mechanism in the Order No. 5091c, it finds FOF 285 "difficult" to understand. (Exh. MPC-17, p. 4) Mr. Worring states:

Thus, I can only interpret this Order as expressing the Commission's interest in being informed about utility resource acquisition decisions and resource planning. (Exh. MPC-17, p. 4)

MPC argues that since it met with Commission staff "several months" before the Colstrip 4 purchase proposal was made, it is in compliance with Finding of Fact No. 285.

264. Dr. Power (HRC) indicates that he cannot testify as to what compliance is required by FOF 285, but that "several months is not enough time for ratepayers and competitors to supplant the Colstrip 4 resources." (HRDC RDR PSC-286)

265. MCC interprets FOF 285 as a signal to all parties that the Commission was interested in implementing a procedural mechanism for acquiring resources at the lowest possible cost. To accomplish this, the utility was given the obligation to be forthcoming with legitimate cost estimates in order to facilitate this process. (MCC RDR PSC-314)

266. LUIG interprets FOF 285 to mean that alternative suppliers for that new resource should receive the same opportunity to substitute their resource for the Utility's, "at a cost less than the utility expects to incur." (IND RDR PSC- 336)

267. The Procedural Order also required MPC to address its interpretation of "possible competitors" as used in Finding No. 285, as well as the length of time necessary for possible competitors to supplant the same resource(s). Mr. Worring states that since a competitive bidding procedure was not adopted in order

No. 5091c, "I simply do not know what the Commission meant by that language." (Exh. MPC-17, p. 5)

268. Potential Customer Response: The Commission requested that MPC;

...file testimony addressing the potential customer response, in terms of resource avoidance, if customers were given the opportunity to respond to prices fully reflecting marginal or avoidable costs. (Procedural Order, pp. 12-13)

269. MPC's analysis is based on the full marginal costs calculated in its compliance filing in Docket No. 87.4.21. Based on these costs, MPC studied the customer response of increasing the revenue requirements of the various customer classes by the following amounts:

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Table 5

Increase in Revenue Requirements

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<u>Customer Class</u>	<u>Increase</u>
Residential	29.2 %



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Commercial	29.2 %
Industrial	29.2 %
Contract Industrial	29.2 %
Irrigation	93.8 %

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270. MPC assumes that the above percent increases in each class' revenue requirement would increase each rate design component a uniform percentage. MPC's estimates of the annual cumulative reduction in sales is shown in Table 6 below.

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Table 6

Cumulative Percent Reduction in Sales

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	<u>1st Year</u>	<u>10th Year</u>	<u>Long-Run</u>
Residential	-1.3%	-3.8%	-4.0%
Commercial	-1.1%	-8.9%	-28.0%
Industrial	-3.2%	-3.2%	-3.2%
Irrigation	-10.9%	-47.9%	-76.8%

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Source: Exh. MPC-11, p. JL-3.

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271. MPC estimates that customers would reduce consumption by about 75,590 MWh in the first year, increasing to 367,574 MWh by the tenth year. MPC concludes that, without question, the need for additional resources would be reduced. (Exh. MPC-11, pp. 7-8)

#### NPRC Rebuttal to MPC Supplemental

272. NPRC concludes that MPC did not provide a substantive response to the Commission's request to file supplemental testimony on competitive alternatives to supplant the Colstrip 4 resource. NPRC agrees that MPC was not required to implement a competitive bidding process as a result of Order No. 5091c. However, NPRC states that the Commission's interest in establishing a competitive bidding process for resource acquisition was made clear in that order. NPRC indicates that MPC could have implemented a competitive resource acquisition plan which would have been far less controversial and more progressive than its reliance on a single resource acquisition from Colstrip 4. (Exh. NPRC-3, p. 17)

273. In supplemental testimony, MPC stated that it is difficult to understand FOF 285. (FOF 263) NPRC argues that it is apparent that MPC could provide no substantive response given its decision to pursue resources from its wholly-owned subsidiary. NPRC states that it is clear that MPC did not seek to obtain any

alternative resources, competitive bid or otherwise. (Exh. NPRC-3, p. 18) NPRC argues that it is just as clear that the Commission's intended direction in FOF 285 was to promote a competitive least cost power supply, and demand side resources with a legitimate opportunity to supplant MPC resources. (Exh. NPRC-3, p. 18)

### Competitive Bid Resource Acquisition

#### NPRC Competitive Bidding Proposals

274. NPRC proposes that the Commission adopt a competitive bidding approach to integrated resource, least-cost planning. NPRC argues that competitive bidding allows a reasonable reconciliation of: 1) utility (and subsidiaries)/QF consistency and equity issues; 2) flexibility in balancing supply with demand; and 3) the least-cost acquisition of resources. (Exh. NPRC-2, pp. 32-33)

275. NPRC explains that under the most comprehensive competitive bidding framework, all suppliers (QFs, jurisdictional utilities, outside utilities, BPA, conservation suppliers, independent power producers, etc.) would be eligible to bid for the privilege of supplying power. (Exh. NPRC-2, p. 34)

276. NPRC asserts that a properly constructed competitive bidding process can meet the requirements of PURPA. Under PURPA, electric utilities are required to pay rates which are just and equitable, without discrimination, to QFs. Additionally, a

competitive bidding approach to QF acquisition assures that ratepayers are not faced with the costs of excess supply from either the utility or QFs. (Exh. NPRC-2, pp. 38-39)

277. NPRC outlines fundamental steps that it believes are needed to begin a competitive bidding approach to resource acquisition. First, the process requires an independent party to authorize and/or monitor the bidding process. NPRC proposes that a one to four year forecast of capacity and energy requirements be developed either through a LCP process or through a contested case proceeding. Bid specifications would then be prepared to acquire specific levels of capacity for delivery beginning at a specified time. Bids would be then evaluated and selected on an economic ordering basis so that least-cost supplies are acquired first. (Exh. NPRC-2, pp. 39-41)

278. NPRC argues that certain resources can be given priority status by requiring that a certain percentage of the bid be filled with the preferred resource e.g., conservation. This set aside technique overcomes the conservation development problems inherent in the competitive bidding process. (Exh. NPRC-2, pp. 41-43)

279. NPRC argues that a competitive bidding process gives Montana-located suppliers and QFs an advantage in the process because they can avoid the problems associated with transmission access and wheeling costs. Furthermore, to the extent that more cost effective resources are obtained from the process, electric

rates are minimized to the benefit of the Montana economy. (Exh. NPRC-2, p. 45)

280. Most competitive bidding procedures allow smaller electricity producers an opportunity to sell power without actively participating in the competitive bidding process. NPRC recommends that smaller producers be offered a standard avoided cost rate established at the level of the lowest bid selected. (Exh. NPRC-2, p. 47)

#### MPC Competitive Bidding Proposals

281. MPC's supplemental testimony argues that competitive bidding is not a compliance issue. (FOF 267) In response to Commission data requests MPC states that it believes that its proposal in this filing is the result of a least-cost plan. (MPC RDR PSC-91, and MPC RDR NPRC 1-07) Furthermore, MPC believes that Colstrip 4 would win a competitive bidding procedure. (MPC RDR PSC-91)

#### DNRC Rebuttal to NPRC Direct Testimony

282. NPRC's direct testimony proposes that competitive bidding for resources be based on short-term load and resource forecasts of one to four years. (FOF 277) DNRC argues that a short-term resource acquisition policy such as NPRC is proposing

favors short lived cheaper resources compared to longer lived resources that may be more expensive in the short run. Furthermore, short-term forecasts would complicate competitive bidding, effectively limiting the bidding process to existing resources. (Exh. DNRC-2, p. 14) DNRC also points out that such short-term resource planning would not allow MPC to plan for known resource changes, such as the loss of the WNP-1 contract and BPA peak/energy exchange contract in the mid-1990s. Lastly, short-term planning would eliminate the possibility of acquiring lost opportunity resources.

283. DNRC also contends that it is necessary to know a utility's least-cost expansion path before competitive bid resource acquisition can be instituted. Currently, there is a great deal of disagreement over which resources are least-cost to MPC, so competitive bidding for MPC must be viewed as an experimental process. For these reasons, DNRC recommends that the Commission reject NPRC's proposal to limit the purchase to 25 MW and acquire the remainder of the of the 74 Mws from QFs using a competitive bidding procedure. (Exh. DNRC-2, p. 6)

#### HRC Rebuttal to NPRC Direct Testimony

284. HRC supports the concept of competitive bid resource acquisition, stating that competitive bidding has "substantial" benefits over in-house resource acquisition. HRC states that some

of the positive benefits are: more informed resource decisions; reduced rates from competition; and ratepayer protection from project cost overruns and nonperformance. Despite these advantages, HRC is emphatic in recommending that the Commission not adopt a competitive bidding procedure in this proceeding. (Exh. HRCDA-4, pp. 3-5)

285. NPRC recommends that a competitive bid procedure be adopted and implemented in this proceeding. HRC warns that a review of competitive bidding procedures and the lack of competitive bidding in other states is a signal that this Commission should proceed cautiously in this area. (Exh. HRCDA-4, p. 5)

286. HRC's overwhelming concern with the adoption of a competitive bidding approach is the impact it would have on utility-funded conservation, specifically, low income weatherization and residential conservation. Beyond that, HRC is concerned that MPC's resource acquisition process provide the most beneficial mix of resources from the consumer's perspective. HRC insists that competitive bidding is not such a process, although it may be a valuable tool within that process. (Exh. HRCDA-4, p. 5)

287. HRC describes competitive bidding as a process that was developed to deal with supply side resource acquisition, particularly in the area of QF suppliers. Competitive bidding, as actually practiced, tends to bias against conservation and other demand side resources. There is a diverse set of potential

resources, (QFs, Independent Power Producers (IPPs), conservation, demand side programs, etc.), each with different characteristics and problems so that they have to be treated differently in the resource acquisition process. For this reason, HRC argues that a single, all resource acquisition process is unlikely to work. (Exh. HRCDA-4, pp. 6-9)

288. HRC believes that the first step of a competitive bidding process should be to develop an integrated resource plan to assess MPC's need for resources. A utility's load and resource plan plays a crucial role in the competitive bidding process, and therefore must be reliable and accurate. MPC states that its L&R Plan is a least cost power plan. (FOF 281) However, HRC does not agree:

The truth of the matter is that Montana has no publicly supervised integrated resource planning process for electric utilities. Yet that is a prerequisite for rational and reliable competitive bidding. (Exh. HRCDA-4, p. 13)

289. HRC warns that the Commission should be aware of preapproval problems that may result if the Commission supervises the development and implementation of a competitive bidding process. (Exh. HRCDA-4, pp. 13-14) All source bidding may lead to an erosion of state jurisdiction over MPC's resource acquisition process. If IPPs are allowed to bid, the FERC may choose to



regulate these transactions, preempting state regulation. Additionally, transmission issues including wheeling-in for bidders outside the system, and wheeling-out for non winning bidders must be addressed. (Exh. HRCDA-4, pp. 18-21)

290. NPRC proposes that a need for resources to be competitively bid could be based on a short-term forecast from one to four years. (FOF 277) HRC argues that planning on a short-term horizon could be disastrous in terms of minimizing costs to ratepayers. Most QFs and utility-owned generation would not be able to come on-line within the forecast horizon, leaving purchased power as the only feasible alternative. This may not be the least-cost alternative. Additionally, HRC notes that other states have adopted planning horizons from 8 to 20 years. (Exh. HRCDA-4, pp. 21-22)

291. HRC concludes that competitive bidding has intriguing possibilities that should be pursued, but that the Commission should first pursue an integrated least-cost planning process. (Exh. HRCDA-4, p. 29)

#### NPRC Rebuttal Testimony

292. NPRC admits that competitive bidding is not a panacea for resource acquisition, but argues that competitive bidding should play a primary role in least-cost resource acquisition. NPRC asserts that the growing body of literature indicates that a

competitive bid method can be developed and implemented in a timely manner in this proceeding.

293. NPRC recommends that the record in this proceeding be used to quantify the amount of resources MPC will need over the next five years. The witness recommends that the Commission allow a 25 MW purchase of Colstrip 4, and put the remaining resource needs out for competitive bid. (Exh. NPRC-3, pp. 23-24) Lastly, NPRC argues that the design and implementation of a competitive bid can proceed simultaneously within the framework of the Advisory Committee approach to conservation and least-cost planning. (Exh. NPRC-3, p. 26)

#### Commission Decision On Colstrip 4 Issues

294. The Commission agrees with MCC when it argues that MPC ratepayers should pay no more than their opportunity cost for power. (see FOF 208) MPC recognizes ratepayer opportunity costs when it states that the basic principle followed by the Utility was to pay no more for Colstrip 4 than it would pay for alternative resources. (see FOF 178) Opportunity costs are measured by the cost of alternatives which are foregone by choosing a particular course of action.

295. In this proceeding MPC is proposing a 74 MW purchase of Colstrip 4 power. The Commission believes that the opportunity

cost of the Colstrip 4 purchase to ratepayers is the cost of resource alternatives foregone. One alternative ratepayers have is to proceed on the resource acquisition path contained in MPC's Base Case L&R Plan. This opportunity cost is measured by an appropriate avoided cost valuation of Colstrip 4.

296. Clearly, another measure of opportunity cost for ratepayers is the value of firm, long-term power in the bulk power market. MPC and other intervenors have provided market-based comparisons attempting to compare the proposed Colstrip 4 power purchase to recent power sales contracts. (FOF 244, 246, 250, 257)

297. The Commission believes that the opportunity cost of the Colstrip 4 purchase to ratepayers is the lesser of avoided costs or market value. MPC has offered comparisons between the proposed purchase price and the fully allocated cost of Colstrip 4 of 55.09 mills/kwh (n). (FOF 178) In this light, however, the fully allocated cost of Colstrip 4 has no bearing upon the opportunity costs of MPC ratepayers.

298. The CS4LMD also has an opportunity cost associated with Colstrip 4. That opportunity cost is also measured by the long-term value of Colstrip 4 in the bulk power market. Such market-based comparisons may provide a basis for determining opportunity costs for both CS4LMD and the Utility's ratepayers.

299. The Commission notes that if the avoided cost value of Colstrip 4 is less than the value of Colstrip 4 in the bulk power market, then CS4LMD's opportunity costs will exceed ratepayer's

opportunity costs. If this difference is very great, Colstrip 4 power may be sold in the bulk power market.

300. MPC argues that Colstrip 4 should be acquired or it will be lost as a resource. (FOF 150) DNRC urges that the Commission accept a price which is equal to or above CS4LMD's opportunity cost. (FOF 191) The Commission rejects these arguments. This Commission cannot allow a purchase of Colstrip 4 power at a price that is above what is currently perceived as the ratepayer's opportunity cost, regardless of CS4LMD's opportunity cost.

301. The following sections present the Commission's decision regarding the various Colstrip 4 related issues in this proceeding.

The Commission's decision on the MOU will be presented first, followed by the Commission's decision on loads and resources, avoided costs, market-based comparisons, compliance, and competitive bidding issues.

#### Memorandum of Understanding

302. MPC notes that it cannot unilaterally change or terminate the terms and conditions of the MOU between the Utility and CS4LMD.

(TR pp. 489, 498, 578) As noted previously, the forecast payment stream contained in the MOU is equal to 42.16 mills/kwh nominally levelized. (FOF 206)

303. During the hearing, MPC established a new avoided cost valuation for Colstrip 4. MPC revealed that correction for an error in PROMOD reduces the nominally levelized avoided cost value of Colstrip 4 to 40.94 mills/kwh. (TR p. 235) However, MPC is not proposing that this new avoided cost valuation be the basis for pricing the Colstrip 4 power purchase. (TR p. 464)

304. This Commission cannot accept a sale of Colstrip 4 power by CS4LMD to the Utility for a price which exceeds an appropriate avoided cost valuation for Colstrip 4, notwithstanding other problems contained in the MOU. For this reason, among others to follow, the Commission does not approve the MOU between the Utility and CS4LMD.

305. The Commission wishes to make itself clear: The Commission is not opposed to the Company purchasing Colstrip 4 power, as long as the price of that purchase is less than or equal to ratepayer's opportunity costs. However, if the resulting avoided cost compliance valuation required by this Order were consistent with the levelized cost of the payment stream contained in the MOU, the Commission would still have grave reservations about allowing into rates, in this proceeding, the costs of a purchase based upon a document such as the MOU.

306. A significant problem with the Company's proposal in this proceeding is that it appears to hinge upon preapproval by this Commission of the expenses associated with the Colstrip 4 purchase over the next 22 years. It would appear to the Commission that

through "substantial approval" of the MOU, not only is MPC requesting approval of the Colstrip 4 purchase expense in test period rates, it is requesting that the Commission approve a specific methodology for 22 years, including forecast adjustments.

307. In utility ratemaking, the concept of preapproval is generally the outgrowth of a desire to reduce the risk associated with a certain action. Extensive preapproval undoubtedly shifts risk from shareholders to ratepayers. There is also a definite connection between the management function performed by the utility and preapproval. The basic concept of regulation entails independent management running the utility, with the Commission stepping in to protect the public if management's actions are deemed imprudent. Preapproval places the Commission in the position of actually protecting management from imprudent actions, thus seriously compromising management independence, and the arm's length relationship between management and the Commission. This Commission sets utility rates, it is not responsible for management decisions.

308. This concern with preapproval implicates several provisions of the MOU, most notably the reopener and the escalation mechanisms. In this proceeding, the Commission is being requested to "substantially approve" the reopener and the methodology to be used in 1995, as reflected in the testimony of Mr. Worring:

A. (Mr. Worring) I think I understand what you are saying. If they didn't approve the methodology specifically that we have, but they approved one that the Company and Colstrip 4 accepted, now I have to go a little further, but they wouldn't state that that's the methodology to be used in the 1995?

Q. Right, that's right. The Commission says nothing on that point.

A. I didn't think that's substantially approving; and the reason I say that is because without having enough definition of what's going to happen at the reopener, it's not really a 22-year agreement, and I think it's desirous, at least on the utility part, that we have a 22-year agreement, and we like to have some basic ground rules as to what's going to happen when there is one event through those 22 years that changes it. (TR p. 618)

309. The Commission is also being asked to approve the first year cost under the MOU of 34 mills for recovery in rates as part of the test period revenue requirement. This cost, as tilted will change in accordance with certain escalation features over the 22 years of the MOU. (TR p. 113) These escalation features are contained in the MOU (TR p. 583), and the Company, as part of its proposal for "substantial approval," is requesting that the Commission approve the application of these escalation features

through the full 22 years. (TR pp. 113-114) Further insight into the significance of the Commission's approval of the escalation features (and Tilt-1) is offered by Mr. Worring:

Q. Now, along Tilt-1, okay, following along Tilt-1, that's the price to be paid by the ratepayers for the purchase of Colstrip 4; is that correct?

A. That's the purchase price.

Q. And these are the costs or prices, depending on how you want to look at it, that will be reflected in rates, correct?

A. With the inflationary adjustments, uh-huh. (TR p. 589)

310. Essentially, the Commission's "substantial approval" of the MOU amounts to the "substantial approval" today of the following: the prices found in the MOU for the next seven years, represented by Tilt-1, and with minor adjustments pursuant to approved escalation features, and; the methodology (again, including escalation features) by which the price for the remaining 15 years of the MOU will be determined and adjusted in 1995. The Commission believes that such action on its part would constitute preapproval of the Company's actions. It bears noting here that as a purchased power expense, future Commissions will possibly judge



MPC's activities relating to a purchase of power from Colstrip 4 based upon a prudency standard. Thus, the Commission's actions today would potentially jeopardize the power of a future Commission in this regard.

311. The Company's risk reduction strategies in this proceeding are obvious. While the "routine" power purchase contract will not be brought before the Commission for approval (TR p. 83), those with a perceived regulatory risk will:

Q. Now, if the Company were going to enter into a power purchase contract with Washington Water Power tomorrow, would it come to the Commission for approval of that contract?

A. (Mr. Neill) Well, I don't know for sure. I guess it would depend on the significance of it. I could give you a general answer, no, I don't expect we would unless there was some indication that we would not have favorable treatment of that expense unless we did. (TR p. 104)

This philosophy was echoed by MPC in its post-hearing brief to the Commission:

The reality is that, without some blessing of the MOU by this Commission, the CS4LMD and the electric utility would be irrational and unwise to continue with the sale and purchase without any

assurance that prices in the MOU will be recovered in the future. (MPC Brief, p. 19)

312. Beyond preapproval concerns, other aspects of the MOU also stand in the way of Commission acceptance. For example, the MOU contains inconsistencies in language making interpretation of the agreement difficult. The term "overpayment" takes different meanings in different parts of the memorandum. (TR pp. 567, 572, 584-585, 588) Additionally, the Commission finds that the MOU is not consistent with other testimony and documents contained in the record of this proceeding. The unilateral termination language, or lack thereof is one such inconsistency. (FOF 313) Another inconsistency is whether the AC1 price stream (see Exh. MPC-19, p. 28) is adjusted or not at the time of the reopener. (TR pp. 584, 597-598)

313. MPC argues that the reopener provision contained in the MOU has value to ratepayers. (FOF 204) Additionally, MPC states that the Utility will have the option of terminating the agreement at the time of the reopener. (FOF 205) However, during the hearing, MPC acknowledged that this language was not included as a provision in the MOU, but indicated that it would be a good "clean up" provision. (TR pp. 394-395)

314. Various parties have presented testimony on the reopener provision of the MOU. The MCC concludes that the MOU subjects ratepayers to a "tremendous" amount of risk. (FOF 217) DNRC

concludes that the reopener provision subjects ratepayers to an unknown amount of risk and that the Commission should not approve the reopener provision. (FOF 224) NPRC's main concern with the reopener provision is that it be conducted under public review, and that it may not be least cost at the time of the reopener. (FOF 231) The Commission agrees with the MCC and DNRC that the reopener provision subjects ratepayers to an unknown amount of risk.

315. The Commission also questions the reopener in light of termination provisions, and the effect of those provisions, as outlined in the MOU. First, and as previously discussed, the unilateral right of termination for the Utility at the time of the reopener is not found in the MOU. (TR pp. 599-600) According to Mr. Worrying, if such a provision did exist, it would not allow for recovery by the Utility of any of the "unrecovered overpayments" (in this instance, referring to the difference between tilt and AC1). (TR pp. 599-600) Similarly, the "unrecovered overpayments" (tilt less AC1) will not be recovered by the Utility in the event of termination of the MOU because of action by the Commission either now or in the future, which action does not "substantially approve" the terms and conditions of the MOU. (TR pp. 569-570)

316. The Commission questions the propriety of such provisions from the ratepayers' perspective. Mr. Worrying explained the philosophy underlying the nonrecovery by the Utility of the "unrecovered overpayments" as follows:

It's viewed that the utility is getting the use of that resource at less than its fully allocated cost for that period of time. (TR p. 567)

317. The Commission flatly rejects this logic. As previously noted, the AC1 curve represents the current value of the resource to ratepayers at that point in time. In this sense, the fully allocated cost is irrelevant. Simply put, if after the reopener the Utility terminates the MOU and forfeits the unrecovered overpayments, the Utility would have paid more for the Colstrip 4 power than it is acknowledged to be worth.

318. The Commission also believes that the termination provisions (both the "unilateral right" of the Utility, and termination for Commission action), if accepted by the Commission today as reasonable, will make any future decision to terminate the MOU (either by the Utility or the Commission) extremely unlikely. Clearly, only a decision to continue with the MOU would allow for a recovery of the then substantial overpayments which would have accrued at that point. Notably, at the reopener, the amount of these substantial overpayments would be at its greatest. (TR p. 575) Obviously, these termination provisions of the MOU are also seriously implicated by the Commission's earlier expressed concern for avoiding preapproval.

Revenue Requirement Effects

319. Pursuant to the Commission's decision not to accept the MOU, the following revenue requirement adjustments are required to exclude the effects of purchasing power from Colstrip 4 from this rate case. The Commission finds MCC's proposed adjustments to reduce revenues by \$9,380,069 and purchased power expense by \$18,168,240 to be proper in this proceeding. The expense portion of this adjustment represents the elimination of the purchase of power from Colstrip 4, and the revenue portion of this adjustment represents the elimination of the revenues MPC would receive from selling off-system the power purchased from Colstrip 4 that would not be used by MPC's firm, native load.

#### Loads and Resources

320. The following sections present the Commission's decision on the appropriate load forecasts, thermal resource capabilities, hydro resource capabilities, conservation resources, and QF resources to be included in MPC's L&R Plan for use in this proceeding.

321. Load Forecasts: MCC argues that MPC's load forecast is too high when compared to actual test year loads. (FOF 137) MCC recommends that MPC's forecast be adjusted downward by using actual test year peak and applying MPC's 1989 Base Case forecast growth

rates, or alternatively applying MPC's 1988 Low Case forecast growth rates. (FOF 140)

322. DNRC argues that MCC's load forecast proposals should be disregarded because they are not based on a valid statistical methodology. DNRC argues that the forecast cannot be changed unless the model is changed or constrained. (FOF 144)

323. The Commission agrees with DNRC that it is not statistically valid to simply apply Base Case load growth rates to test year loads. The Commission notes that MCC has acknowledged that the impact of a 75 MW variance in MPC's forecast model would be almost nonexistent in five years. (TR p. 1033) Additionally, MCC acknowledges that it did not perform any statistical analysis in formulating its recommendations. (MCC RDR DNRC 1-4) The Commission finds that it cannot accept the MCC's load forecast recommendations. Therefore, the Commission accepts MPC's rebuttal proposed load 1989 Base Case load forecast.

324. Thermal Resource Capability: MPC's thermal resource capabilities became an issue in this proceeding when the MCC proposed increasing Corette and Colstrip 3 peak and energy capabilities in initial testimony. (FOF 153-157) In response to MCC's proposals, MPC filed rebuttal testimony proposing to base thermal resources on studies designed to measure actual capabilities. (FOF 165-171)

325. The Commission finds some merit in MPC's rebuttal proposed thermal capability studies. However, the Commission is

generally disappointed that these proposals came about in this proceeding only because the MCC addressed thermal capability in its testimony.

326. MCC argues that MPC's proposed methodology for determining the peak capabilities of Corette, Colstrip 1, and Colstrip 2 is flawed because it incorporates data during portions of the year when the peak does not occur. (MCC Brief, p. 22) However, MPC points out that if it had based its studies on winter data only, Corette capacity could justifiably be set even lower than 156 MW, and the capacity ratings for Colstrip 1 and 2 would not change. (MPC Reply Brief, pp. 11, 16-17)

327. MCC notes that the Corette's coal supply has been changed, adversely affecting Corette capacity. (Exh. MCC-7, p. 15) MCC uses this information to support its proposal to rate Corette at 170 MW, arguing: "Ratepayers should not be saddled with additional costs for a Colstrip 4 purchase because of poor design and/or poor fuel supply at Corette." (Exh. MCC-7, p. 15)

328. The Commission is interested in MPC's actual thermal generation capabilities for purposes of load and resource planning (see FOF 335 on this matter). If changing coal supplies has reduced Corette's capacity, then this fact should be taken into account for load and resource planning. If the MCC believes that MPC imprudently changed coal supplies, that is an issue which may be appropriate for a revenue requirement adjustment, not a load and resource adjustment.

329. MCC proposes to set Corette's capacity at 170 MW. (FOF 153) The Commission agrees with MPC when it states that MCC's proposal to set the Corette capacity at 170 MW is unrealistic, noting that Corette has achieved that level of capacity only once in the past three years of operation. (FOF 165) The Commission accepts MPC's proposal to set Corette peak and energy capability at 156 MW and 124.8 average MW for purposes of load and resource planning. The Commission also accepts MPC's proposal to set Colstrip 1 and Colstrip 2 peak capabilities at 317 MW for the combined facility for purposes of load and resource planning.

330. The Commission notes that MPC uses daily peaks in determining Corette peak capability and monthly peaks in determining the peak capability of the Colstrip units. (FOF 166-167) For purposes of determining thermal resource capabilities in this proceeding, the Commission accepts each of these different methodologies. However, the Commission believes that it is unlikely that both of these methodologies are equally appropriate.

Therefore, MPC must provide analysis showing the peak capabilities of Corette, Colstrip 1, Colstrip 2, and Colstrip 3, using both daily and monthly peaks in its next general filing. The Company, of course, will be free to argue for whatever methodology it feels is appropriate.

331. The Commission accepts MPC's proposal to measure actual thermal energy capabilities. However, the Commission finds that MPC's application of that methodology conflicts with its testimony



in the case of Colstrip 1 and 2. MPC states that it used data from 1985 to 1988 to determine Colstrip 1 and 2 energy capabilities. (FOF 167) However, MPC's study indicates that data from 1976 to 1988 was used in determining energy capabilities. (MPC RDR PSC-430)

332. The Commission believes that it is inappropriate to use one period of time to set capacity, and then use the result to determine energy capability using data covering a different period of time. For this reason, the Commission accepts the methodology MPC proposed in its testimony, matching data periods for determining peak and energy capability. Application of MPC's methodology to the same time period used to determine peak capability results in an annual plant factor of .79. Therefore, the Commission requires MPC to use an annual plant capability factor, or capacity factor, of .79 for Colstrip 1 and 2.

333. MCC proposes a capacity factor of .843 for Colstrip 3. (FOF 157) MPC proposes that Colstrip 3 be listed at 216 MW based on 1988 data. (FOF 168) MPC proposes that Colstrip 3 be given a capacity factor of .78 based on 1984 and 1988 data. Once again, the Commission finds that MPC is proposing to mix data periods for determining capacity versus energy. The Commission finds that using MPC's methodology on 1988 data only results in a capacity factor of .83 for Colstrip 3. Therefore, for purposes of determining Colstrip 3 energy capability, the Commission requires that MPC use a capacity factor of .83 for Colstrip 3.

334. The thermal resource levels adopted by the Commission for use in this proceeding are listed in Table 7 below. The Commission requires that these capabilities be reflected in any compliance filing required by this order.

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Table 7

Commission Accepted Thermal Generation Capabilities

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<u>Facility</u>	<u>Capacity</u>	<u>Capacity Factor</u>	<u>Energy</u>
Corette	156 MW	80%	124.8 Mwa
Colstrip 1&2	317 MW	79%	250.4 Mwa
<u>Colstrip 3</u>	<u>216 MW</u>	83%	<u>179.3 Mwa</u>
Total	689 MW		554.5 Mwa

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335. The Commission accepts MPC's thermal resource proposals as a positive step toward modeling actual expected capabilities, regardless of "nameplate" ratings. The Commission believes that thermal capabilities should be based on statistical, engineering, and economic analysis of past performance, and present expectations of future performance. The Commission believes that MPC should

expand its analysis in these areas before presenting proposed thermal capabilities in its next general filing.

336. Hydro Resource Capability: MPC's 1989 L&R Plan lists hydro resource at 518 MW peak capability. Five hundred eighteen MW represents the installed capabilities of MPC's hydro resources except for a 2 MW reduction to the Kerr facility's peak capability. (TR p. 375) MPC proposes a 2 MW reduction to the Kerr facility capability based upon operational constraints. (FOF 164, TR p. 374) MCC proposes that hydro resources be listed in the L&R Plan at 520 MW. (FOF 152)

337. MPC also includes several proposed hydro upgrades in its 1989 L&R Plan. (Exh. MPC-12, RJL-9) Table 8 below shows the installed capability of MPC's proposed upgrades, along with the increase in capability MPC is proposing in its 1989 L&R Plan.

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Table 8

MPC Installed Vs. Proposed Hydro Capability

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<u>Facility</u>	<u>Installed</u>	<u>Proposed</u>
	(1)	(2)
Madison	4.2 MW	1 MW

Rainbow	22.0 MW	3 MW
Cochran	5.3 MW	0 MW
Ryan	<u>40.0 MW</u>	<u>29 MW</u>
Total	71.5 MW	33 MW

Source: 1. MPC Application for Amendment of License,  
Project No. 2188.

2. Exh. MPC-12, RJL-9.

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338. During cross-examination, MPC acknowledged that it included the Ryan upgrade at 40 MW in its 1986 L&R Plan, but reduced the upgrade to 29 MW in its 1988 L&R Plan. However, the installed capability of the Ryan upgrade did not change over this period. (TR pp. 376-377)

339. The Commission also explored the methodology that MPC uses to determine hydro upgrade capability. (TR pp. 378-383) For example, the Rainbow-Cochran upgrade is listed as one project for upgrade planning purposes. (TR p. 379) MPC proposes increasing Rainbow-Cochran capability by 3 MW based on an engineering study. (MPC RDR PSC-518, p. 13) This study models the actual capability of the Rainbow-Cochran facility before and after the planned upgrade. The study shows that MPC calculates the capability of the Rainbow-Cochran facility before the upgrade to be 42.44 MW. (TR p. 381) However, the installed capability of the combined Rainbow-

Cochran facility is 85 MW, which is the level listed in MPC's 1989 L&R Plan.

340. The Commission believes that in order to accept MPC's proposal to list the Rainbow-Cochran upgrade at 3 MW, it must also accept that the existing capability of the combined Rainbow-Cochran facility is 42.44 MW, not 85 MW as listed in the 1989 L&R Plan.

341. It is apparent to the Commission that MPC has changed its methodology for determining the resource capability of hydro upgrades between its 1986 and 1988 L&R Plans. However, MPC did not file any testimony in this proceeding, or any prior proceeding, addressing this change in methodology. (TR pp. 384-385) Additionally, until the time that Commission data requests on this issue were submitted to MPC, (on or about May 2, 1989), none of the parties in this proceeding were aware of this issue. (TR pp. 384-385) MCC indicates that it did not know about this issue until very late in the proceeding, but notes that it "would like to think" that it would have explored this issue more fully. (TR p. 1091)

342. For purposes of this proceeding, the Commission finds that MPC's existing hydro resources and planned hydro upgrades must be listed in the L&R Plan at full installed capacity (including Kerr). This finding must be reflected in any compliance filing required by this Order. The Commission requires that any future proposal to deviate from installed capacity be accompanied by comprehensive studies, workpapers and testimony.

343. At several points in this proceeding, objections were raised by various parties (MPC and MCC) concerning the Commission's investigation of this issue through data requests and cross-examination. The Commission finds it unnecessary to dispose of these objections at this time. If all objections were granted, the record of this proceeding would still reveal an inconsistency between the hydro resource capabilities of the upgrades and installed capacity. The Commission has taken administrative notice of MPC's FERC relicensing application (Project No. 2188). Based on a comparison of the numbers in this proceeding (including the 1986 Plan), the Commission can conclude that MPC has changed its methodology for determining the resource capability of the hydro upgrades at some point in time. The Commission refuses to accept use of this new methodology until it has been fully examined in a contested case proceeding.

344. Forecast Conservation Resources: MPC indicates that the cost effective level for conservation resource acquisition is 19.5 mills/kwh real levelized, which is derived from MPC's 1987 Long-Term Qualifying Facilities (LTQF) tariffs. (Exh. MPC-23, p. 7) The Commission agrees with MPC that this real levelized cost is not directly comparable to the avoided cost value of Colstrip 4 because the value of Colstrip 4 has been nominally levelized. (MPC RDR PSC-273)

345. DNRC states that its analysis was based on a cost effective level determined by the value of Colstrip 4, or 47.2

mills/kwh in prefiled testimony. (FOF 160) However, DNRC later retracted that testimony, indicating that its measure of cost effective conservation is derived from the Northwest Power Planning Council's estimate of the cost of a coal-fired generation plant. (TR p. 988) Reviewing the Council's Plan, the Commission has determined that the 47.2 mills/kwh cost effective level referenced by DNRC is a real levelized value, which is not directly comparable to the nominally levelized value of Colstrip 4. (Exh. NWPPC-1, pp. 7-11)

346. The Commission notes that a conversion of costs expressed in real terms to nominal terms will increase the size of that cost because anticipated inflation has to be included in the nominal levelization. Such a conversion cannot be done accurately without the annual cost stream, and forecasts of inflation. However, the Commission notes that MPC's LTQF-1a rates may provide a guide for a rough conversion of real to nominal terms. MPC's LTQF-1a capacity rates for a 20-year purchase beginning in 1989 increase by a factor of approximately 1.41 when converted from real to nominal terms. Applying this rough conversion factor, MPC's cost effective level is approximately 27.5 mills/kwh, the proposed purchase is 47.2 mills/kwh (prefiled testimony), and the DNRC's cost effective conservation level is approximately 66.55 mills/kwh, all in nominal terms.

347. The Commission believes that DNRC's error in confusing real and nominal terms may over-estimate MPC's cost effective

conservation potential. The Commission notes it cannot determine whether MPC's cost effective level is set at an appropriate level without MPC's avoided cost compliance filing as required by this Order.

348. MPC indicates its conservation forecast is based on 1987 supply curves and its 1987 LTQF default tariffs. Furthermore, MPC indicated that 1988 supply curves were not available for making 1988 conservation estimates. However, MPC did acknowledge that until the 1988 supply curves are calculated, the best estimate of conservation potential may be obtained by applying the 1988 default tariffs to the 1987 supply curves. (MPC RDR PSC-455) Therefore, the Commission directs MPC to calculate compliance LTQF tariffs (see FOF 364), and use the resulting tariffs to forecast conservation potential. The resulting conservation estimates must be included in the Base Case Plan before the negotiated option avoided cost valuation of Colstrip 4 is calculated. (see FOF 366)

349. QF Resources: MPC's L&R Plan indicates a 40 MW decrement to resources resulting from the QF buy-out. The Commission accepts this change for purposes of load and resource planning. The Commission also accepts MPC's proposal to list existing QF contracts in the L&R Plan based on a probability of development. (FOF 147) In doing so, the Commission notes that these proposals were not contested by any party in this proceeding.

Avoided Cost Valuation of Colstrip 4



350. The Commission recognizes MPC's prefiled proposal to base a proposed purchase of Colstrip 4 on the unit specific avoided cost methodology resulting from Order No. 5091c. The Commission believes that a correctly calculated avoided cost valuation of Colstrip 4 can leave customers economically indifferent to the resource(s) supplying power over the life of the purchase. The Commission also recognizes that MPC's latest proposed price for the purchase is not consistent with MPC's own stated avoided cost valuation of the resource. (TR p. 464)

351. The Commission notes that all intervening parties proposing a purchase price(s) for Colstrip 4, have based all or some of their recommendations on an avoided cost calculation, notwithstanding disagreements in assumptions and methodology used in the avoided cost calculation.

352. The methodology and assumptions used to construct a proper avoided cost valuation for Colstrip 4 are contested issues in this proceeding. The remainder of this section will present the Commission's decision on the methodology and input assumptions required for an appropriate avoided cost calculation, based upon the record in this proceeding.

353. BPA NR Rate: A great deal of MPC's future resources remain unspecified in the L&R Plan, and are referred to simply as acquired peak and energy (1988 L&R Plan). In past LTQF tariff compliance filings, MPC has used BPA's medium NR rate forecast as a

proxy for the cost of acquired resources. In this proceeding MPC is proposing to use an average of BPA's high, medium and low forecasts. (see FOF 177, 198)

354. MCC, DNRC, and LUIG addressed MPC's use of an average of NR forecasts. Initially, MCC adopted the use of an average without comment. Later, MCC argues that the medium rate is a better estimate of BPA's own expectations of costs. (FOF 184) DNRC initially argued that MPC should use the BPA medium forecast. (FOF 186) However, later in the proceeding, DNRC argued that the NR rate should not be used at all in valuing Colstrip 4. (FOF 219-221) Finally, DNRC stated that it is not possible to tell whether the average NR rate is too low or too high or a reasonable proxy, but that no party presented evidence to indicate that it is a proxy for MPC's future cost of power. (DNRC Opening Brief, p. 4) LUIG argued from its initial testimony forward that MPC's proposal to average BPA NR forecasts represented an unsupportable change in avoided cost methodology. (FOF 194)

355. During the course of this proceeding, BPA issued an updated 1989 forecast of NR rates. No party in this proceeding proposed using this updated forecast. However, in response to Commission data requests and cross-examination, MPC indicated that if it were required to use the NR-89 forecast as a proxy for unspecified resources it would propose to use an average of the medium and high forecasts because, "the result would be approximately equal to the forecast presently being used, which MPC

feels is a reasonable proxy for the cost of future resource." (MPC RDR PSC-523)

356. The Commission finds it peculiar that MPC proposes an average of high, medium, and low forecasts for NR-87 forecasts, and an average of medium and high if the use of NR-89 is required. These proposals indicate to the Commission that MPC's proposed methodology may be result oriented. However, MPC has stated that it has not conducted an independent forecast of future power costs. (TR p. 221)

357. DNRC argues that it is inappropriate to use BPA NR as a proxy for unspecified resources. (FOF 219-221) DNRC argues that the only avoided cost scenario not severely affected by the NR rate is DNRC's Salem scenario. (FOF 222)

358. The Commission agrees with NPRC and MCC that DNRC's Salem scenario is not a realistic resource alternative for MPC at this time. (FOF 209, 334-212) If Salem were a reasonable resource alternative, the Commission would expect MPC to list the Salem project in its L&R Plan in compliance with FOF 48 and FOF 244 in order 5091c:

In keeping with the economic dispatch analogy, one would base avoided capacity prices on the highest avoidable capacity that MPC plans to acquire. For the default tariff option this would require a calculation and comparison of the discounted present value of

each hydro investment, Colstrip 4 costs (if MPC plans to purchase), and the current relevant BPA rates. (FOF 48, Order No. 5091c) MPC is currently capacity deficient; in turn, the highest cost capacity MPC plans to purchase must be factored into capacity price calculations for corresponding QF contract lengths. All options must be exhausted (e.g., Colstrip 4, Ryan, BPA 7(f) etc.). (FOF 244, Order No. 5091c)

359. MPC's testimony indicates that in 1984 it entered into an agreement to "shelve" the application indefinitely. (Exh. MPC-5, p. 13) Additionally, MPC is asking for recovery of Salem costs in this proceeding, because of the uncertainty whether the Salem project will ever proceed. (Exh. MPC-5, p. 14) For these reasons, the Commission finds that it cannot accept DNRC's Salem based scenario.

360. The Commission requires that MPC continue to use BPA's medium NR-87 forecast as a proxy for the cost of unspecified acquired resource in its L&R Plan, and its valuation of Colstrip 4 in this proceeding. This finding must be reflected in any compliance filing required by this Order.

361. MPC acknowledges that approximately two-thirds of the value of the proposed Colstrip 4 purchase is derived from the NR rate. (TR p. 259) Furthermore, MPC acknowledges that it does not actually intend to acquire BPA resources, rather it is using BPA NR as a "proxy" for future resource acquisitions. (FOF 198)

362. DNRC argues that BPA NR rates cannot be used as a proxy for the cost of future MPC resources. First, DNRC explains that MPC can only place an obligation on BPA for only one-third of its load growth, since only one-third of MPC's service territory lies within BPA's service territory. Second, DNRC argues that cost of NR relies more heavily on the cost of embedded resources rather than new resources. (FOF 219-221)

363. The Commission agrees with DNRC that MPC's reliance on generic "proxy" resources in its L&R Plans seriously weakens the usefulness of its long range planning effort and its determination of avoided and marginal costs. (DNRC Brief, p. 11) For this reason, the Commission strongly suggests that MPC seek to move away from its heavy reliance on acquired resources and "proxy" costs in future L&R Plans, avoided cost, and marginal cost filings. Instead, MPC should be placing resources it actually intends to acquire into the Plan (e.g., Bird refurbishment, hydro resource upgrades).

364. MPC Compliance filing: The Commission requires that MPC file an avoided cost compliance filing reflecting the Commission's findings in this proceeding. This filing is to include LTQF tariffs corresponding to the Commission's findings in this proceeding.

365. The starting point for this compliance filing shall be the avoided cost valuation presented by Mr. Leland during the hearing, which resulted in a nominally levelized avoided cost

valuation of 40.94 mills/kwh for Colstrip 4. (TR p. 235) The Commission recognizes that the model used to calculate the 40.94 mills/kwh value incorporates many changes from the model used to calculate the 47.71 mills/kwh (n) value proposed in MPC's prefiled testimony. (FOF 178) The Commission believes that none of these changes/corrections were contested at the time of the hearing in this proceeding. Therefore, the Commission accepts the changes/corrections that were adopted to arrive at the 40.94 mills/kwh (n) valuation. Additionally, MPC's compliance filing must incorporate all relevant findings required by this order, including Finding Nos. 334, 342, 348, and 360.

366. The Commission requires that MPC's compliance filing include a calculation of the avoided cost value of the proposed Colstrip 4 purchase. The purpose of this requirement is to establish what the appropriate avoided cost value of Colstrip 4 would have been based upon the record in this proceeding. In performing this calculation, MPC is required to make use of the medium NR-87 rate not only for placing a cost on acquired resources, but also as an input into its forecast of off-system sales prices. (see MPC RDR PSC-522)

367. The Commission believes that this calculation will not necessarily establish the avoided cost value of Colstrip 4 in any future proceeding. Certainly future changes in load forecasts, resources, or a multitude of other input assumptions may change the avoided cost value of Colstrip 4, QFs, or any other resource.

368. The Commission has previously recognized that avoided costs may change rapidly with time. In its last avoided cost order the Commission found:

Until such time that MDU's (or any other utility's) tariffed prices attract an uneconomic quantity of QF power, they shall remain tariffed with annual updates. The current mechanism of annually changing prices should suffice. If and when this mechanism appears too sluggish to respond to QF power supplies, the utility should contact the Commission and request a recalculation of prices. (FOF 230, order No. 5091c)

The Commission anticipates that MPC will request a recalculation of LTQF rates after any major change in loads and/or resources.

#### Market-Based Valuation of Colstrip 4

369. As stated earlier in this decision, the Commission believes that market-based comparisons of long-term firm contracts may provide a measure of both ratepayer and CS4LMD opportunity costs. (FOF 296, 298) NPRC's market-based comparisons extend the terms of comparable sales using DNRC-identified conservation. The Commission believes that it is not proper to extend comparable sales using DNRC-identified conservation. The Commission finds that DNRC's cost effective level for conservation is too high.

(FOF 345-347) Additionally, the Commission agrees with MPC and DNRC that MPC will most likely acquire cheaper conservation resources immediately. (FOF 254, 260)

370. In response testimony, MPC states that its proposed sale of Colstrip 4 power to the City of Los Angeles is "perfect" for determining the market-based value of Colstrip 4 power. (FOF 257)

The Commission agrees with NPRC and DNRC that the L.A. sale represents the value of firm long-term power in a segregated market, and has little bearing on the value of power in the Northwest market. (FOF 248, 252) While the Pacific Southwest is a segregated market for firm long-term sales, it is not necessarily a segregated market for short-term opportunity sales of energy. Transmission constraints do not limit short-term opportunity sales to the same extent as firm sales. Therefore, the Pacific Southwest market may be relevant in determining the market value for opportunity sales of nonfirm energy.

371. Based upon the record in this proceeding, the Commission agrees with DNRC's analysis which extends comparable sales using BPA's medium forecast of NR-87 rates. (FOF 160) DNRC's market-based comparison shows that the levelized value of Colstrip 4 is somewhere in the range of 38 to 47 mills/kwh (n). (FOF 250) However, the Commission believes that it may be appropriate to lower DNRC's range of values since these comparisons do not



include, for example, any adjustment for transmission costs. (DNRC RDR PSC-410)

#### Compliance With Order No. 5091c

372. The Commission finds that not accepting the MOU, combined with requiring MPC to tariff LTQF rates which do not reflect the inclusion of Colstrip 4 as a resource mitigates its concerns regarding MPC's compliance with Order No. 5091c, for the most part.

The Commission believes that not accepting the MOU also addresses the majority of Mr. Tavenner's concerns. (FOF 197)

373. MPC states that it finds FOF 285 "difficult" to understand, but that it has complied with FOF 285 since it met with Commission staff several months before the Colstrip 4 proposal was filed. (FOF 263) Additionally, MPC states that it does not know what the term "possible competitors" means, since a competitive bid procedure was not required in Order No. 5091c.

374. With the record in this proceeding, Commission would like to take this opportunity to clear up any misconceptions MPC may have regarding compliance with Order 5091c. Finding of Fact No. 285 states:

At any time a utility decides upon a resource not in its 1985 resource plan, the same utility must submit the annual actual total expected costs associated with the resource. That is, if, for

example, MPC reconsiders the Salem plant, the Commission requests modification and associated cost data. Such data must be provided prior to the utility's making a long-term contractual commitment to the resource. The purpose of such data is evident: The economy and ratepayers deserve an opportunity for possible competitors to supplant the same resource(s) at a cost less than the utility expects to incur. (Order No. 5091c, FOF 285)

375. The Commission finds that ratepayers and possible competitors can supplant MPC owned resources only if the resource in question is reflected in avoided cost tariffs to QFs, and marginal cost prices to ratepayers. The Commission finds that neither has occurred in the case of MPC's proposal to purchase Colstrip 4. MPC proposed to offer the "high" LTQF-1a tariffs to QFs coming on-line before the final decision in this proceeding. (AC Compliance Application, p. 1) The Commission finds that this proposal does little to offer competitors a chance to supplement MPC owned resources. The Commission finds that compliance with FOF 285 requires that MPC allow all QFs an opportunity to sign tariffs under the "high" rate, regardless of the QF's projected on-line date. However, this opportunity to sign contracts would still be subject to the Commission's previous finding.

376. The Commission believes that under a competitive bidding process, the term "possible competitors" may be expanded to include

all sources (e.g., conservation resources and independent power producers).

377. MPC filed supplemental testimony calculating customer response to rates fully reflecting the cost of the proposed Colstrip 4 purchase. MPC's analysis consisted of increasing each class' revenue requirement to full marginal revenues. (FOF 268-271) The Commission notes that MPC did not perform the analysis requested. The Commission requested that MPC calculate customer response to prices fully reflecting marginal costs, not prices reflecting full marginal cost revenue requirement. (FOF 268) MPC used the latter pricing structure, primarily because its load forecasting model is insensitive to changes in rate design that do not affect the price of an average bill. (MPC RDR PSC-244, 245, 454)

378. The Commission believes that MPC's modeling would improve if they were based on marginal price rather than average bill analysis. However, MPC's analysis does show that ratepayers, facing the full cost of Colstrip 4, would reduce consumption by about 75,590 MWh in the first year, increasing to about 367,574 MWh by the tenth year. (FOF 271)

379. The Commission believes that MPC has not complied with FOF 285 in terms of allowing ratepayers an opportunity to supplant the need for resources by choosing to conserve or not consume electricity. However, the Commission realizes that if loads and resources change rapidly, a utility may not always have the

opportunity to reflect the cost of a resource in rates before it is acquired. To the extent MPC complies with the Commission's request in Finding No. 363, this problem may be ameliorated.

#### Competitive Bid Resource Acquisition

380. The Commission continues to believe "that the long-term solution to giving utilities and QFs equal, and consistent treatment is a competitive bid." (see FOF 26, Order No. 5091c) This point has never been more apparent than in this proceeding. However, the Commission finds that it is not yet ready to require MPC to engage in competitive bidding for resources. However, the Commission notes that this does not preclude MPC, or any other utility, from proposing a competitive bidding resource acquisition policy. The Commission believes that it would be appropriate for MPC to include a competitive bidding process in conjunction with its current least-cost planning efforts.

#### Uncontested Issues

There were several revenue requirement matters in this case that were agreed upon by MPC and MCC. Since these issues are viewed as uncontested, the Commission finds that a listing of each topic and a brief explanation of the related effect to the Company's originally proposed pro forma level of revenues and expenses will suffice.

The first issue is the cost of coal obtained through affiliated transactions. In this proceeding, the Commission received on April 20, 1989, a stipulation (see Attachment #2 to this Final Order) which had been entered into by MCC and MPC regarding coal expense. The stipulation has the effect of lowering captive coal costs by a total of \$2,675,813 from MPC's actual test year coal costs (Coal Stipulation - Attachment 2, Exh. A, p. 1 of 2). That total adjustment includes a proposed reduction of \$1,509,000 in MPC's original filing (ARM Rule 38.5.157, S14520, p. 98 of 131) and a further reduction in coal costs of \$1,166,813 shown in Ms. Harper's rebuttal testimony (MPC Exh. 30, CRH-1 Revised, p. 4 of 6, Column S). The stipulation states that the issue of MPC's coal expense is resolved for the purposes of this Docket only, and the stipulation is made for settlement purposes only and cannot be considered as precedent for any other proceeding (Coal Stipulation - Attachment 2, pp. 1-2).

The Commission finds the coal stipulation to be proper in this proceeding and lauds both MCC and MPC for being able to reach a settlement on this very important issue. The stipulation uses the methodology that has been approved by the Commission in determining the proper level of coal expense in several MPC rate cases. The Commission continues to believe that the methodology represents a very fair approach in determining the proper level of MPC coal expense that results from affiliated transactions. In order to be consistent with the Commission decision in this

proceeding concerning the issue of Corette plant generation, coal expense must be reduced further by \$232 to reflect MCC's proposed generation at the Corette plant (see Finding of Fact No. 403 in this Final Order). Therefore, the Commission finds the total reduction of coal costs in the amount of \$2,676,045 from MPC's actual test year level (\$1,167,045 reduction to MPC's original pro forma level of coal expense) to be proper in this proceeding. Also, the Commission strongly encourages MPC and MCC to explore similar stipulations on this issue in subsequent proceedings.

Concerning other revenue and expense items that are not being contested in this proceeding, the Commission finds the following list with the related adjustments for the type of account involved to be proper in this proceeding (MPC Exh. 30, Exh. CRH-1 Revised, pp. 3-4 of 6; MPC Exh. 32, Exh. DRR-2 Revised, p. 1 of 1; Original and Updated MCC Late-Filed Exh. 13):

<u>Issue</u>	<u>Account</u>	<u>Amount</u>
Current Kerr Rental	Expense	\$374,184
Test Period Capacity Factors	Expense	110,603
Amort. of Kerr wildlife Study	Expense	4,218
Nonallowable Labor	Expense	(21,517)
1982 & 1983 Computer Software	Expense	(147,035)
Test Year Bird Depreciation	Expense	(535,969)
Test Year Property Tax	Expense	(1,702,809)
Revised Test Period Revenues	Revenue	1,498,107
" " " "	Expense	42,510
Revised Test Period Labor	Expense	813,708
Updated Power Supply Costs	Revenue	(5,241)
" " " "	Expense	(7,950,558)
Change in Montana Tax Rate	Expense	(120,690)

Association Dues Expense

Consistent with past proposals, Mr. Clark of MCC proposes to remove all dues to organizations not necessary to the rendition of utility service in Montana (Living Lakes, 33 Chambers of Commerce and a portion of EEI dues). Mr. Clark proposes to reduce this expense by a total of \$65,133 (MCC Exh. 6, pp. 31-32)

In his rebuttal, Mr. Neill of MPC argues against Mr. Clark's proposed elimination of dues for the various Chambers of Commerce in Montana. His arguments are largely tied to the involvement of Chambers of Commerce in economic development in their local areas around the state. Mr. Neill does not argue against Mr. Clark's proposed adjustments to Living Lakes and EEI dues (MPC Exh. 6, pp. 13-14).

The Commission finds that MCC's proposed elimination of dues for Living Lakes and a portion of EEI (related to lobbying) are proper. Ratepayers receive no benefits from those expenditures, and quality of service will not be harmed by their elimination. Concerning Chambers of Commerce, however, the Commission recognizes there may be potential benefits for ratepayers in the advent of economic development in Montana. On the other hand, parts of these dues are used for lobbying activities, the recovery of which through rates would be improper. Recognizing the record does not clearly reflect the division of the expense between these two activities, the Commission finds that 60 percent of the dues for Chambers of Commerce are approved in this proceeding as a

reasonable level of acceptable costs. Accordingly, the Commission finds 40 percent of these dues must be eliminated in this proceeding to reflect the exclusion of the lobbying efforts of that organization (TR Vol. IV, p. 1112). In its next general filing the parties may wish to address this issue further, in an effort to fine tune this percentage split. Based on the above discussion, the Commission finds that the reduction of \$58,406 to reflect the elimination of certain association dues to be proper in this proceeding. This adjustment can be calculated using the figures shown on MPC Exh. 30, Exh. CRH-1 Revised, p. 6 of 26.

#### Corette Gas

At MPC's Corette plant, gas purchased from the Company's affiliate, Glacier Gas Company, is burned in the process of generating power. In his direct testimony, Mr. Clark of MCC proposes to use the actual purchases and volumes for the 12 months ended May of 1988 to price the test period gas. This proposal produces a unit cost of gas of \$1.19 per Mcf and a reduction in the test period fuel expense as revised of \$75,496. (MCC Exh. 6, p. 17)

In his rebuttal testimony, Mr. Gruel of MPC proposes a price for Corette gas of \$1.5373 per Mcf, the actual average for the 12-month period ending November of 1988. (MPC Exh. 26, p. 4)

In his supplemental testimony, Mr. Clark justifies his gas price proposal based on the proximate matching he is able to



achieve through his approach. He points out the Company has used low volume levels in the calculation of the unit price of gas that result in a very high unit price that is then applied to the much higher test year volume level resulting in very poor matching (MCC Exh. 7, pp. 4-5).

The Commission finds MCC is correct in attempting to reasonably match test year volumes with test year purchases for gas at Corette. MPC's approach is to develop a unit price for gas that is based on using a low level of purchase volumes and then to apply that artificially high rate to a much higher level of test year purchase volumes. The Company's approach is improper for clearly not meeting the matching principle of ratemaking. Therefore, the Commission finds the reduction in fuel expense in the amount of \$75,496 to reflect MCC's unit gas price at the Corette plant to be proper in this proceeding.

#### Colstrip Unit #3 Coal Discount

In his direct testimony, Mr. Clark explains that there is an agreement between the supplier of coal (Western Energy Company) and the owners of Colstrip Unit #3 that provides for a discount of \$0.55 per ton for the first 3 million tons of coal purchased after 1987 for Colstrip Units #3 and #4 combined. He states that this discount is to reimburse the owners for excess coal costs that were paid prior to 1988. Based on the estimated test year tons of coal

burned at Colstrip Unit #3, Mr. Clark proposes to reduce fuel costs by \$537,591 (MCC Exh. 6, pp. 17-18).

In her rebuttal testimony, Ms. Harper of MPC argues against Mr. Clark's proposal. She says that because the discount is temporary, it is not considered normal and should not be considered in normalized test year expenses. Ms. Harper also argues that the discount is projected by Mr. Gruel to expire in July of 1989 (MPC Exh. 26, p. 4), meaning that the discount will be expiring at essentially the same time that new rates from this proceeding will go into effect (MPC Exh. 30, pp. 3-4).

This \$0.55 per ton of coal discount for Colstrip Unit #3 (and #4) took effect in January of 1988 and continued throughout the entire year of 1988. Clearly, the discount is a known and measurable change to test year coal prices and, for this reason alone, should be accepted by the Commission. Further, not to reflect the discount would be unfair to ratepayers, since this would allow MPC to receive a windfall, while ratepayers, who originally would have paid through electric rates for the overcharge of coal costs leading up to the settlement, would not be able to receive any benefit from the settlement. MPC's argument that this discount is not normal and should be normalized out of fuel expenses ignores the nature of and reason for the discount. Therefore, in the interest of fairness to ratepayers, and in recognition of the known and measurable change in 1988 Colstrip

Unit #3 coal prices due to the \$0.55 per ton discount, the Commission finds the reduction of \$537,591 to fuel expense to be proper in this proceeding.

Additional Corette Plant Thermal Generation

In his direct testimony, Mr. Clark of MCC explains that in determining the test year resources available, the Company assumes that, for each month, test year thermal generation plus opportunity purchases would equal the sum of actual year thermal generation plus opportunity purchases. He states that the Company's assumption is based on the premise that, as thermal generation increases, available opportunity purchases would decrease under median water conditions. Mr. Clark says that this is the same position taken by MPC in previous cases (MCC Exh. 6, p. 19).

Mr. Clark explains that if it is taken as a given that opportunity purchases cannot be reduced below zero, the Company's assumption produces less than available thermal generation during four of the twelve months of the test year. He says that this resulted in MPC reducing the generation at the Corette plant in varying amounts for certain months (MCC Exh. 6, p. 19).

Mr. Clark states that, as in Docket No. 84.11.71 and prior dockets, the Company has not shown that, with median water, the marketable energy in any month cannot exceed median water hydro plus the sum of actual thermal generation plus opportunity

purchases. He also points to Order No. 5113b in Docket No. 84.11.71 in which the Commission specifically found MCC's proposed adjustment on this matter appropriate on the basis of excess capability alone, and that the Company has made off-system sales at levels above those included in this case (MCC Exh. 6, pp. 19-20).

Based on the above discussion, Mr. Clark proposes to reflect additional off-system sales and revenues, as well as related fuel costs at the Corette plant that result from removing the Company's test year dispatch limitations. This proposed adjustment increases off-system sales revenues by \$2,245,979 and increases fuel expense at the Corette plant by \$711,781 (MCC Exh. 6, p. 20).

In his rebuttal testimony, Mr. Gruel of MPC argues against Mr. Clark's proposal for additional generation at the Corette plant. Mr. Gruel states that the adjustment is improper because there is no basis for assuming a market for the additional power exists (MPC Exh. 26, p. 4).

Concerning Mr. Clark's statement that the Company assumes that, for each month, test year thermal generation plus opportunity purchases would equal the sum of actual year thermal generation plus opportunity purchases, Mr. Gruel disagrees. He says that for each month the sum of all resources is adjusted to produce an off-system sales quantity that equals the actual four-year average, and that the assumption that drives the thermal generation and

opportunity purchase values is that the test year off-system sales will equal the actual four-year averages (MPC Exh. 26, p. 5).

Mr. Gruel states that MPC's historical four-year average methodology is an attempt to stay away from trying to estimate future off-system sales. He argues that consistency requires the test period sales to be tied to historical experience, just as the test period loads are (MPC Exh. 26, p. 5).

Concerning Order No. 5113b in Docket No. 84.11.71, Mr. Gruel says that those adjustments were made to address concerns about surplus generation, not because the basic methodology of setting test period off-system sales was judged inappropriate (MPC Exh. 26, p. 6).

The Commission finds that this issue and the adjustment proposed by Mr. Clark are identical in concept and methodology as in previous MPC electric rate cases. In those cases, the Commission consistently found the adjustment proposed by MCC to be proper. In this case, there have been no fresh arguments presented by the Company that would lead the Commission to change its position on this issue. In Order No. 5113b, the Commission found that MCC's adjustment was proper on the basis of Mr. Clark's excess capacity reasoning alone. Additionally, the Commission found substantial evidence to support the argument that MPC will be able to sell its excess energy off-system, and that the market and transmission facilities are sufficient to allow MPC to actually make the sales. The Commission finds that there is no evidence in

this record to cause a change in those findings in this proceeding. Accepting the Company's position would allow a situation where ratepayers would be providing a full return on a generating plant in rate base that would be only partially producing revenues for rate purposes due to manipulation of the methodology to determine test year generation and off-system sales. Therefore, the Commission finds MCC's proposal to increase off-system revenues by \$2,245,979 and fuel expense by \$711,781 to reflect increased generation at the Corette plant to be proper in this proceeding.

#### Salem and Carter Ferry Projects

In his direct testimony, Mr. Neill of MPC explains the Company's proposal that the costs of the Salem and Carter Ferry Projects, about \$10.5 million, should be amortized over a five-year period. This amount includes all of the preliminary investigation and survey costs, including the studies and analysis performed for permitting purposes. MPC also includes real property costs in the amount of the difference between the acquisition costs of the property and the appraised current fair market value of the property (MPC Exh. 5, pp. 12-13).

The Salem Project is a 330 MW coal-fired plant to be sited near Great Falls. In 1983, MPC applied to the DNRC for a permit to construct and operate the Salem Project, and, in 1984, MPC and the DNRC entered into an agreement to "shelve" the application indefinitely (MPC Exh. 5, p. 13).

The Carter Ferry Project contemplated a hydroelectric plant on the Missouri River. A 1979 study showed the site to be economically attractive, and, in 1981, an application for a preliminary permit was made to the FERC to develop the site. The preliminary permit expired in 1984 when MPC did not follow through with further application to the FERC to construct and operate hydroelectric generating facilities at the site. Mr. Neill states that these projects have not been cancelled or abandoned, and the Company still believes that these resources may eventually be needed (MPC Exh. 5, p. 13-14).

In his direct testimony, Mr. Pederson of MPC states that the Company recommends that the costs for the Salem Project less estimated salvage value of land be amortized over five years. As a reasonable approach to risk sharing between the customer and the Company, the Company is not recommending that any part of this investment be rate based. He says that risk sharing encourages the Company not to abandon these potential resource additions (MPC Exh. 33, pp.7-8).

In his direct testimony, Mr. Clark of MCC proposes to disallow totally the amortization expenses of these projects. He says that neither of the projects have been cancelled, and he believes that it is premature to allow write-off of the investments made to date. Mr. Clark believes that the costs would properly be accumulated and depreciated over the useful life of any resulting project that is developed; however, if no used and useful project

develops, he says that ratepayers should not bear any costs (MCC Exh. 6, p. 22).

Concerning Mr. Pederson's discussion of risk sharing, Mr. Clark says that he does not understand the concept of the customers accepting this risk. He says that the Company, not ratepayers, is rewarded for financial risk taking, and that Mr. Pederson appears to be contemplating MPC to share its obligation to serve with the customers. Concerning encouraging the Company not to abandon these projects, Mr. Clark states that the Company would be less likely to abandon a project in which it has a financial stake than one that has already been written off (MCC Exh. 6, pp. 22-23).

In his rebuttal testimony, Mr. Neill states that MPC would be irresponsible as a utility if it did not investigate resources which have a reasonable potential for providing economic generation for its customers. He adds that MPC might be subject to charges of imprudence if it did not investigate such potential resources, and he says that there has been no charge that any of these investigations were imprudent in any way. Mr. Neill concludes that to determine that these costs cannot be recovered from ratepayers while also implicitly recognizing that these types of costs must be incurred if the utility is to act responsibly in meeting its obligation to serve increasing loads is unfair (MPC Exh. 6, p. 3).

In his rebuttal testimony, Mr. Pederson states that risk sharing describes equitable allocation of financial loss between



shareholders and ratepayers. He says that this is a term often associated with abandoned or cancelled plants (MPC Exh. 34, p. 3).

The Commission finds that MCC's proposal and analysis of the correct treatment of the costs of the Salem and Carter Ferry Projects are proper in this proceeding. There were many approaches the Company pursued in attempting to justify the amortization of these costs, including risk sharing, a comparison between allowed rates of return on equity and shareholder risk associated with the disallowance of these costs, and incentive to cancel the projects due to considerable tax benefits. However, the Commission finds that those considerations are irrelevant due to the fact that these projects have not yet been cancelled. These costs are properly treated as capital items that would be recovered when and if they produce a used and useful facility.

Concerning the various statements about risk to the utility and risk sharing, the Commission sees no reason to vary from its historically consistent view that risk for the study and development of new generating resources, for which rate base treatment is a likely utility request, is properly placed squarely on the utility and its shareholders, not the ratepayers. Maintaining the risk entirely with the utility gives the proper incentive for management to make well reasoned decisions about resource development through the utility's ongoing obligation to provide high quality service at the least possible cost. The

obligation to serve carries with it certain inherent risks, but proper decision-making by utility management can result in reward for the utility and its shareholders for taking the risk. The reward can be in the form of financial return and in having satisfied customers. The Commission believes that Montana law is quite clear about the placement of risk and the duties of utilities.

Based on the above discussion, the Commission finds the reduction in expenses in the amount of \$1,867,295 to reflect the elimination of costs associated with the Salem Project and \$225,627 to reflect the elimination of costs associated with the Carter Ferry Project to be proper in this proceeding. In making this determination, the Commission finds the Company's proposal in rebuttal testimony of Mr. Pederson to revise the salvage values of the land associated with the projects (MPC Exh. 34, pp. 13-14) to be moot and disallowed in this proceeding. In subsequent filings, the Commission directs MPC to identify all costs associated with these projects that the Company is including in its case.

#### Buffalo Rapids and Hauser Capacity Study

In his direct testimony, Mr. Neill of MPC states that the Buffalo Rapids hydroelectric sites on the Flathead River were the subject of preliminary survey and investigation. The sites are located on the Flathead Indian Reservation, and the Company has been unable to reach agreement with the respective Indian Tribes

concerning the development of the sites. Mr. Neill says that the Company has abandoned its plans to pursue development of the sites (MPC Exh. 5, p. 11).

Mr. Neill states that an investigation of the potential of increasing generation capacity at Hauser Dam was made as part of a Company-wide investigation of increasing hydro capability. He says that the investigation resulted in a determination that increased generation at Hauser is not feasible from an environmental standpoint (MPC Exh. 5, p. 11).

Mr. Neill argues that the investigations of additional hydroelectric resources at the Buffalo Rapids sites and at Hauser represent the responsible investigation of potential future resources. He reasoned that although not all investigations of resources will result in construction, the investigations themselves are a legitimate cost of meeting the utility's obligation to serve (MPC Exh. 5, p. 12).

Mr. Pederson of MPC explains the Company's proposed ratemaking treatment of these costs. He says that in December of 1987 the Company determined that it was not feasible to develop these hydroelectric projects. Subsequently, the Company requested, and was granted, an accounting order by the Commission allowing MPC for accounting purposes to amortize the abandoned investment over five years commencing January, 1988. Mr. Pederson states that the Company is requesting that these costs be amortized over five years

for ratemaking purposes. He also states that, as a method of sharing the costs between MPC and its ratepayers, the Company is not requesting that the unamortized cost of these abandoned projects be rate based (MPC Exh. 33, p. 9).

In his direct testimony, Mr. Clark of MCC says that he does not believe that it is appropriate to have ratepayers pay the costs of these projects. He says that there is no economic or environmental justification for abandoning these sites. He describes the costs as capital expenditures to develop a resource that the Company walked away from and that did not result in a used and useful project. Therefore, Mr. Clark recommends that these costs not be included in revenue requirements. Alternatively, he says that the costs should be amortized over the approximate life of the hydro facility that was not built, without rate base treatment for the unamortized balance (MCC Exh. 6, pp. 23-24).

In rebuttal testimony, Mr. Neill made the same argument for the costs of these projects as he did for the costs of the Carter Ferry and Salem Projects. See Finding of Fact No. 410.

In his rebuttal testimony, Mr. Pederson states that his testimony concerning the Salem and Carter Ferry projects would apply equally to these projects. He notes the only difference is that MPC has determined that it is not feasible to construct these projects. Mr. Pederson also argues against Mr. Clark's alternate proposal for a long amortization period. He says that a long

amortization period for an investment which is not in rate base would be punitive to MPC (MPC Exh. 34, pp. 4-5).

In this proceeding, the Commission has already addressed MPC's arguments concerning risk sharing and the proper placement of risk. See FOF 413. The Commission is fully aware that the Company's obligation to serve restricts its activities to a degree not experienced by nonregulated entities. In return, investors in MPC as a regulated utility experience certain advantages in the regulatory arena which makes their investment less risky than most investments in nonregulated businesses. The Commission believes that allowing MPC to recover these costs in this proceeding would amount to an abuse of that distinction. In return for its obligation to serve all ratepayers in its service area with electricity, MPC is allowed to provide such service from a monopoly position. This tends to make investment in MPC less risky than investment in most nonregulated businesses. Allowance of the recovery requested by MPC would improperly expand that monopoly advantage to a point where the investment would become risk-free or at least be subject to a very limited risk. Under the Company's proposal the only way the shareholder could fail to recover its investment is if the project were both a failure and imprudent. The Commission finds nothing in its statutes that would indicate the legislature intended the utility investor's risk should be limited to this degree. Nor has the Commission in determining

appropriate rates of return consider utility investors' risks to be so limited.

MPC also attempts to draw a distinction between return of investment and return on investment. Such a distinction serves no purpose in this case. The legislature in adopting the "used and useful" standard has put the utility investor on notice that by choosing to participate in a project he risks not only the possibility he will not earn a return on his investment but also that he may not recover his initial investment if the project does not become used and useful. To guarantee a recovery of initial investment would require that the Commission modify its thinking in evaluating investor risk associated with investment in utility stocks. MPC also maintains that the "used and useful" test should not apply to these items because they are not capital items, but rather expenses. The Commission is not swayed by this distinction. It is one of semantics only.

Finally, the Company mentions an accounting order allowing MPC for accounting purposes to amortize these costs over five years. The Commission emphasizes that the accounting order also states there is absolutely no relation between book accounting and the proper ratemaking treatment of these costs. In considering the proper ratemaking treatment of the costs of these projects, the Commission points to the fact that these projects never resulted in a facility which could produce power. The Commission finds, consistent with its finding in Pacific Power and

Light Company Docket No. 83.9.57, concerning the abandonment of nuclear power plants, that Montana's used and useful law precludes the Commission from granting the Company's request to amortize the costs of the Buffalo Rapids and Hauser Study Projects.

Based on the above discussion, the Commission finds the reduction in expenses in the amount of \$45,135 to reflect the elimination of costs associated with the Buffalo Rapids Project and \$121,406 to reflect the elimination of costs associated with the Hauser Capacity Study Project to be proper in this proceeding. In making this determination, the Commission finds the concerns raised by both MCC and MPC over the proper amortization period are moot. In subsequent filings, the Commission directs MPC to identify all costs associated with these projects that the Company is including in its case.

#### Coal Royalties Expense

In response to Data Request PSC-502, MPC states that the newest regulations on coal valuation and royalty calculations are effective March 1, 1989, and that MPC rate case coal prices include the effect of the new royalty regulations. The new regulations change all Federal coal royalties for all leases to 12.5 percent of the value of coal.

In response to Data Request PSC-514, MPC states that in this proceeding the Company assumes that all future coal production will come from Federal leases and then estimates future

royalties on that basis. For planning purposes, the 1989 coal royalty rates are estimated and show no difference for before and after March 1, 1989.

During the hearing in this proceeding, the Commission received the Company's response to Data Request PSC-557. In that response, MPC provides a chart showing 1987 and 1988 average actual coal royalty rates paid along with the coal royalty rates proposed by the Company as a test period estimate in this proceeding. MPC also says that the private royalty rate for coal produced at the Rosebud Mine becomes 12.5 percent as of June 1, 1989.

In MPC Late-Filed Exhibit No. 7, MPC provides calculations of royalty costs included in this filing and calculations of what royalty costs would be if the actual 1987 and 1988 royalty rates were used.

The Commission finds that using the actual 1988 coal royalty rates as a known and measurable change from 1987 rates is proper in this proceeding. The Company's use of 1989 estimated coal royalty rates is improper as it is premised upon changes occurring beyond 12 months after the test period in this proceeding. In approving this adjustment, the Commission finds that being consistent with its decision concerning additional generation at the Corette plant is proper and increases the adjustment by \$67,327. Therefore, the Commission finds that a reduction in the amount of \$2,808,960 to reflect actual 1988 coal royalty rates is proper in this proceeding.



One of the difficulties for the Commission in addressing this issue is that the Company did not include in its original or rebuttal filing any workpapers or testimony describing the proposed royalty rates, or their derivation and origination, that were being utilized in this case. This approach by the Company is unacceptable to the Commission. Full disclosure of the figures being presented by MPC in a rate case is absolutely necessary to enable all parties to evaluate fairly the issues and make recommendations, and to enable the Commission to make a fully informed decision. Without belaboring this point, the Commission expects that this message is well taken and that incidents of this nature in future rate cases will not occur.

#### Life Insurance Dividends

In response to Data Request PSC-183, MPC provides a schedule of all dividends and payments made to or received from Metropolitan Life Insurance Company. In that response, the Company explains that since the Company experience varies from year to year, these dividends and payments have never been included in a normalized test year for ratemaking purposes.

Under cross-examination, Ms. Harper of MPC explained that at the end of every 12-month policy period, the claims are compared to premiums paid, and either a payment is made to the life insurance company or a dividend is received from the life insurance company. She also stated that the life insurance policy, as of

1989, will be a different type of policy, and there will no longer be dividends received or payments made (TR Vol. V, pp. 1252-1253).

The Commission finds that since 1985, rates have reflected life insurance premiums for MPC which were overstated. Since 1985, the level of dividends have varied widely from \$0 in 1987 to \$391,420 in 1986. The Commission finds that the proper way to reflect a reasonable level of life insurance premium expense in this proceeding is to average the dividends received by MPC over a four-year period from 1985 through 1988 and reduce the expense by that average of dividends. Therefore, the Commission finds that a reduction in expenses in the amount of \$132,795 to reflect the four-year average of life insurance dividends received by MPC to be proper in this proceeding. Ms. Harper's comment that the process of dividends and payments will change in 1989 cannot be considered or evaluated since it is beyond 12 months past the end of the 1987 test year.

#### Previously Discussed Issues

There are several issues in this proceeding affecting the Revenue and Expense portion of this Final Order that the Commission has already thoroughly discussed in the Rate Base section of this Final Order. Therefore, reference should be made to those specific discussions in the Rate Base section for clarification of these issues, and the Commission finds that a listing of each topic and a

brief explanation of the related effect to the Company's originally proposed pro forma level of revenues and expenses will suffice.

The Commission finds the following list with the related adjustments for the type of account involved to be proper in this proceeding (MPC Exh. 30, Exh. CRH-1 Revised, pp. 3-4 of 6; MPC Exh. 32, Exh. DRR-2 Revised, p. 1 of 1; Original and Updated MCC Late-Filed Exh. 13):

<u>Issue</u>	<u>Account</u>	<u>Amount</u>
1987 & 1988 Computer Software	Expense	\$ 53,936
Benefit Restoration Plans	Expense	(430,568)
QF Settlement Costs	Expense	(187,000)
Corette Studies 20 Year Amort.	Expense	(118,049)
Negative Net Salvage at Bird	Expense	(335,075)
Capitalize Indirect Costs	Expense	(3,331,395)
Conservation 20 Year Amort.	Expense	(30,564)
Remove CIS Costs	Expense	(913,566)
" " "	Deprec.	(65,952)
Remove FMS Costs	Expense	(183,912)
" " "	Deprec.	(9)

#### Interest Synchronization

Mr. Clark of MCC calculated interest synchronization using the same procedure approved by the Commission in past decisions. He states that the interest deduction included in the income tax calculation should be the interest component of the return on rate base plus the interest used to finance construction work in progress plus the interest on customer deposits. Mr. Clark's proposed adjustment stems from his proposed rate base and MCC witness Dr. Smith's changes to the capital structure (MCC Exh. 6, p. 36).

The Commission continues to approve the use of the interest synchronization adjustment to give recognition in current rates of the deduction of interest on construction borrowings. Since there are regular additions to rate base from construction, there is no reason to ignore interest which is currently deductible. Therefore, based on the approved level of rate base and cost of weighted debt capital in this proceeding, the Commission finds a reduction in Federal Income Taxes in the amount of \$681,033 and a reduction in Montana Corporation License Tax in the amount of \$135,205 to reflect interest synchronization to be proper in this proceeding.

#### Revenue Requirement

Based on the above Findings of Fact, the following table shows that a reduction in MPC's annual electric revenues in the amount of \$19,711,835 on a total Company basis is necessary in order to provide the opportunity to earn an overall rate of return of 10.44 percent (The resulting Montana jurisdictional approved reduction in annual electric revenues, based on the results of the REC Jurisdictional Allocation Study, is \$16,525,466.):

PART E

OTHER MATTERS

MPC's Generating Units' Coal Supply Quality

This section of the order reviews certain issues concerning the quality of coal supply used by MPC for its generating units. In Attachment 2 of the Company's response to Data Request PSC-430, MPC provides a report entitled "J.E. Corette, Plant Rating, History and Justification." In this document, it is stated that one of the primary limiting output factors for the plant is furnace pressure. The report states:

If the boiler is slagged or fouled, or if pluggage is present in any of the gas passages load can be limited to as low as 130 MW by furnace pressure. There is normally some amount of slagging and minor pluggage in the boiler. (PSC-430, Attachment 2, Page 11)

MPC then lists what it perceives to be the net effect on plant operation of the furnace pressure limiting factor:

with clean conditions in the boiler furnace pressure limitations will generally limit the unit to a peak load of 165 MW net... Normal operating conditions are for the boiler to have some slagging and minor pluggage with furnace pressure becoming a). limiting factor at 160 to 165 MW net. (PSC-430, Attachment 2, Page 13)

MCC submitted data requests in this proceeding which question the quality of coal that is received at the Corette Plant. In the Company's response to Data Request MCC 9-24, MCC requested that MPC

provide the ash content for the coal burned at Corette for the last four years. MPC responded by providing "Daily Peak Generation" reports for the years 1986, 1987 and 1988. These reports contain ash content figures for selected days during each of the months.

Coal quality at Corette was further examined by MCC in Data Request MCC 10-29 where the decision to change sources (seams) of coal for the plant was questioned. MPC responded by stating:

The coal supply at Corette was changed by Western Energy because Area E was mined out and no more coal was available in that area.

In its response to Data Request MCC 10-29, MPC explains the impact on the Corette plant from the change in coal quality:

The major difference is a slightly higher ash content in Area D coal plus a wider variation in ash content... Overall, coal from Area D may tend to reduce performance slightly due to a higher average ash content.

MPC also indicates that the ash content of coal from Area D that was burned at Corette was determined by a "sample analysis" which is done on each coal shipment (approximately three per week) (MCC 13-06).

The Commission agrees with MPC that excess boiler slagging or fouling can present unit capacity limiting factors relating to furnace pressure. The Commission views the MCC concern for coal quality to be a valid consideration as a contributing factor to boiler fouling.

Under cross-examination, Mr. Grue1 reviewed certain aspects of the Company's coal contracts (TR Vol. IV, pp. 1167-1170). It is not apparent whether or not MPC conducts a structured coal sampling program independently from Western Energy's coal sampling/analysis program. Coal sampling should be done in accordance with appropriate American Society For Testing and Materials (ASTM) standards. It is not clear whether this is being done at all of MPC's thermal generating plants (TR, pp. 1194 - 1195).

Of particular concern is the verification that coal received is within coal contract specifications (TR Vol. IV, p. 1170, Lines 8-12). It appears that a "cross check" mechanism may not be in place.

The Commission finds that although the location (seam) of the coal which is mined is a variable that the Company cannot control, MPC is responsible for ensuring that the coal received is as specified in the contract. The Commission may decide to audit the coal sampling procedures that MPC uses to verify coal specifications and costs. The audit would be used to determine the existence and effectiveness of any such program being utilized by MPC. Depending on the results of that audit, the Commission may invite interested parties in a subsequent rate case to provide testimony and recommendations.

Consumer Advisory Panel

As noted in Data Request PSC-398, MPC has had discussion of a Consumer Advisory Panel which was to be established for MPC upper management as a means for a two-way dialogue between MPC and its customers. The Panel would serve in an advisory capacity as a forum for listening and sharing information.

In its response to Data Request PSC-398, the Company says that in May of 1988 a recommendation was made to management to establish the Panel. By September of 1988 a budget for this activity was proposed, and currently the project is still under consideration with no actions having been taken for implementation.

Under cross-examination, Mr. Neill of MPC said that some events have occurred that might have lessened the need for the Panel. He also said, however, that MPC has not abandoned the concept of a Panel, and it does have merit (TR Vol. IV, pp. 1113-1114).

The Commission encourages MPC to continue exploring the possibility of the creation of a Consumer Advisory Panel, as such a concept has the potential for many positive benefits for both ratepayers and MPC. The Panel could supplement the contributions of the Least Cost Advisory Committee in other areas of company policy that may impact rates and service. Therefore, the Commission requests the Company in its next general rate case



filing to provide an update of the development of a Consumer Advisory Panel.

Power Cost Adjustment Clause

In his direct testimony, Mr. Neill of MPC discusses the Company's position regarding an electric power cost and credit deferred accounting tracking mechanism (PCAC). He states that a PCAC is appropriate for a regulated utility because it narrows the risk and rewards to the utility, ratepayers, and shareholders. He explains that a PCAC would match over time, such as a year, the actual net cost of electric resources with the level of the net cost of these resources reflected in rates. He states that the PCAC is appropriate because the expenses and revenues to be tracked are outside of the control of the utility and because determining these expenses and revenues for test period purposes is extremely difficult with actual results varying widely from those assumed in rate filings (MPC Exh. 5, p. 24).

On page 18 of his direct testimony, Mr. Verbael of MPC states that under the Company's PCAC proposal the difference between electric energy costs and electric energy revenues would be deferred for subsequent evaluation and amortization.

In his direct testimony, Mr. Gruel of MPC describes what cost and revenue items should be a part of the PCAC, including fuel costs, purchased power costs, and revenues from off-system sales (MPC Exh. 25, p. 18).

In his direct testimony, Mr. Pederson of MPC explains the proposed accounting for the PCAC, including the accounts involved, what should be included in the accounts, and specific accounting entries (MPC Exh. 33, pp. 4-6).

In his direct testimony, Mr. Clark of MCC argues against the PCAC. He states that there is no evidence that the PCAC will result in any cost savings for ratepayers, and he believes the PCAC will result in fluctuations in rates without thorough Commission and MCC review as would be afforded in a rate case. Alternatively, Mr. Clark says that if the PCAC is adopted, procedures such as those used in the gas tracker mechanism must be implemented (MCC Exh. 6, pp. 57-58).

In his rebuttal testimony, Mr. Michael of LUIG argues against the PCAC. He states that MPC has neither shown that a PCAC is necessary at this time nor has it evaluated the potential impact of the proposal on MPC's ratepayers. He also says that approving the PCAC would shift risk from the Company to its ratepayers (LUIG Exh. 5, p. 2). Finally, Mr. Michael repeats the argument of MCC witness Hess in MPC Docket No. 82.8.54 and states that this general criticism still holds true for MPC's proposal in this proceeding:

The proposed deferred power supply cost accounting removes a major incentive for the utilities management to hold down costs. When management knows that increased costs are going to affect the income they earn for their stockholders, they are likely to work diligently to avoid or at least minimize such cost increases. But if the Commission adopts deferred power supply cost accounting, increased power supply costs will have no

effect on stockholder's earnings, and, thus, the incentive to avoid higher costs is diminished (LUIG Exh. 5, p. 5).

The Commission finds the arguments of Mr. Clark and Mr. Michael to be proper in this proceeding and deny MPC's proposal concerning adopting the PCAC. The Commission is concerned largely that utility management would indeed have less incentive to control costs if such a mechanism were implemented (TR Vol. IV, p. 1116). Also, and as noted at the hearing, the dramatic variances in energy costs that occurred during the 1970's and served as a primary reason for such tracking mechanisms, are not foreseen to occur at this time (TR Vol. IV, pp. 1117-1118). Accordingly, fuel prices have been relatively stable. Without such volatility, the need for a PCAC seems nonexistent. In fact, there have been recent instances where other State Commissions have actually removed such mechanisms from existing utility tariffs. Therefore, the Commission denies MPC's request to implement the PCAC.

Budget Billing

In response to Data Request PSC-164, the Company provided a chart of 1987 monthly balances associated with budget billing. Under cross-examination, Mr. Pederson of MPC discussed those balances and agreed that a credit balance represents ratepayer money that the Company is holding onto while the process of a true-up occurs. (TR Vol. V, p. 1289.) He also indicated that he does not believe that these balances will change much after CIS is implemented. (TR Vol. V, p. 1290.)

The Commission is interested in the monthly balances of budget billing because of the nature of those funds, i.e., money from ratepayers. Also, the effect of CIS on these balances should be interesting. Therefore, the Commission asks that all interested parties, particularly MPC and MCC, address the budget billing balances in the next MPC general rate proceeding.

Corporate Environmental Tax

While discussing a \$2 million exclusion associated with the calculation of the Corporate Environmental Tax, Mr. Pederson of MPC, under cross-examination, stated that the 50/50 allocation between the utility companies and the nonutility companies was strictly an arbitrary assignment. (TR Vol. V, p. 1281.) The Commission determines that no adjustment to correct this arbitrary allocation will be approved in this proceeding, but fully expects

MPC to provide a more accurate allocation in its next general rate proceeding.

FASB 87

On November 13, 1987, the Commission approved Order No. 5236e in Docket No. 86.11.62. The Commission adopted FASB Statement 87 for ratemaking based on the following benefits: comparability between companies, recognition of pension obligations and assets, consistency from period to period within the same company and more meaningful and useful financial reports. The Commission also stated: "If either a utility or MCC believes that for ratemaking, a different actuarial method would produce a more reasonable result, the Commission will consider the evidence presented to it. Additionally, any utility planning to propose an alternative method must notify the Commission within 30 days of the date of this order." On December 14, 1987, the Commission received a letter from MPC which stated in part: "The Montana Power Company currently plans to propose an alternative method of computation of pension expense as compared to Statement 87 pension expense in its next general electric and gas filings."

Order No. 5236e also raised the issue of the proper ratemaking treatment for over and under funded pensions. The order did not reach a conclusion but did state: "This issue will be dealt with in future rate cases on a case by case basis. The

Commission expects vigorous discussion of this question by the utilities and MCC in future rate proceedings."

On July 21, 1988, the Commission sent a letter to MPC which indicated that the Company's filing in this Docket was deficient with respect to pension expense. On August 22, 1988, MPC filed seven pages of supplemental testimony on pension expense sponsored by witness Pederson.

MCC did not file testimony in this Docket which dealt with the issue of pension expense.

In the supplemental testimony MPC indicated that the Company's existing actuarial method resulted in less volatility than would occur using Statement 87. The 1987 contribution made using the existing actuarial method was \$4,004,236. If Statement 87 had been used, the amount of pension expense would have been \$2,938,707.

Mr. Pederson went on to state that the Company had recorded on the balance sheet a deferred credit which is the amount by which contributions to the pension plan exceeded the Statement 87 accrued expense computation. The annual difference between the two methods will be accumulated on the Company's balance sheet so that a full accounting will be available for the Commission's review.

Mr. Pederson addressed the question of whether the Company's pension plan was overfunded. He indicated that he didn't

believe that there is a simple yes or no answer to the question. As of January 1, 1987, the market value of the assets held by the trustee amounted to \$62,398,217. As of that same date the actuarial present value of benefits to employees was \$45,698,602. The Statement 87 projected benefit obligation is \$61,388,385, and if assumptions as to future service are included, the liability increases to \$101,041,047. Mr. Pederson adds that it is important to remember, however, that over time it is likely that pension assets will increase in value as well.

The Commission is very interested in the entire range of issues surrounding pension expense. Clear expression of that interest was voiced by the Commission in Order No. 5236e. Unfortunately both parties in this Docket failed to address these issues in prefiled direct testimony as the Commission had requested.

Finding of Fact No. 468 above indicates that the difference between the Company's actuarial method and Statement 87 is \$1,065,529. This difference is significant and makes clear the reason for the Commission's concern over the issues relating to pension expense. In this proceeding, the Commission has no basis to make any adjustment to pension expense as filed by MPC. In addition, this actuarial method is the same method used by the Company in past rate cases. In this Docket, the Commission approves the accounting for pensions suggested by the Company. However, in the next general rate case filed by MPC, both the Company and MCC are requested by the Commission to file testimony

on the issues relating to pension expense. If MCC agrees with the actuarial method proposed by the Company, testimony to that effect would be of value to the Commission. Both parties are further asked to supply testimony on the issue of whether the MPC pension fund is overfunded. Calculations of the amount of overfunding should be included with the testimony.

#### Upcoming Limited-Issues Filing

Throughout this proceeding, there has been mention of a limited-issues filing to be made sometime in the near future by MPC for its electric operations. The purpose of this filing is to address matters such as property tax settlements, payments for QF generation at the Toston Dam, and several other areas of concern. The Commission would like there to be some discussion about the possibility of MPC not filing immediately with this limited-issues case, but, rather, having MPC file a regular general rate case based on data from a recent test year. That test year could perhaps include at least a portion of 1989 data.

#### Colstrip Unit #4 Accounting Stipulation

In his direct testimony, Mr. Clark of MCC discusses the Colstrip Unit #4 Accounting Stipulation. He explains the purpose of the stipulation and says that the stipulation is supposed to segregate Colstrip LMD from the remainder of MPC's electric facilities and operations so that Montana ratepayers do not bear



any costs as a result of the existence of Colstrip Unit #4. (MCC Exh. 6, p. 58.)

Mr. Clark then argues that the purpose of the Stipulation is not really being accomplished. (MCC Exh. 6, pp. 58-59.) and provides several specific examples of problems he perceives with the allocation procedures. (MCC Exh. 6, pp. 59-65.) Finally, he recommends that the Commission should institute a separate proceeding to consider the implication and the impacts of the stipulation on Montana ratepayers. He adds that such a proceeding should result in a stipulation that minimizes the adverse impact of the LMD on ratepayers to the extent possible. (MCC Exh. 6, pp. 65-66.)

The Commission agrees with MCC and finds that a separate proceeding must be instituted in order to fully address the Colstrip Unit #4 Accounting Stipulation. The impacts of the separation of costs and revenues associated with the operation of the Colstrip units is a major concern to the Commission to ensure that ratepayers are being treated fairly in the allocations. Therefore, the Commission finds that the Company should file testimony and detailed exhibits, including the stipulation itself and records of related transactions, in a separate and individual filing on or before December 31, 1989.

Refunds

In Docket No. 86.11.62(9), the issue of BPA refunds and medical insurance refunds, each with a dollar value of approximately \$2 million, was reserved for discussion in the next general rate case. Mr. Pederson addresses this matter in his direct testimony and recommends that the Commission should not reflect the refunds in rates on the basis that they are not of enough significance to be included. (MPC Exh. 33, p. 20.) He also says that if it is determined proper to include such items, then a policy needs to be established so that similar rate treatment is afforded refunds and payments in the future. (MPC Exh. 33, pp. 20-21.) MCC did not address this issue in testimony.

The Commission finds that these refunds, totalling about \$4 million should not be reflected in MPC's rates in this proceeding. However, this matter requires further exploration to determine the proper ratemaking treatment of refunds. Therefore, the Commission requests that MPC and MCC provide testimony giving observations and recommendations on refunds in the next MPC general rate case.

Jurisdictional Allocation

In this proceeding, Mr. Clark proposed several adjustments to MPC's jurisdictional allocation process, and in his rebuttal testimony, Mr. Corcoran of MPC adopted some of those MCC proposals. The Commission views the matter of jurisdictional allocation as an important aspect of MPC's rate case filings and encourages the parties to continue in subsequent filings to evaluate and modify this process. Proper allocation between jurisdictions is necessary to ensure that ratepayers are paying for their fair share of costs.

## PART F

ELECTRIC COST OF SERVICE AND RATE DESIGN

The Commission requires that the overall change in MPC electric revenues, resulting from the Commission's decision on various issues in this proceeding, must be reflected in rates. MPC is required to file electric tariffs reflecting a uniform percent change in all rate design components. The Commission requires that these electric tariffs be effective for service rendered on and after August 29, 1989.

The Commission believes that changes in MPC's L&R Plan will affect MPC's marginal cost of service. These changes may not be properly reflected in a uniform percent change in rates. Therefore, the Commission requires MPC to file a complete electric

cost of service and rate design filing on or before January 15, 1990. Part of MPC's cost of service and rate design study must reflect the Commission's decision in this proceeding. Of course, the Company may also file an electric cost of service and rate design study containing those assumptions and conclusions that it feels are appropriate. Additionally, the Commission requires that part of MPC's testimony accompany the filing must address the issue of fully reflecting marginal costs in rate design through the use of inverted or declining block rate structures.

#### MPC NATURAL GAS

#### PART G

#### THE GAS STIPULATION

On April 20, 1989 the Commission received a stipulated agreement signed by MPC and the MCC. The stipulation specified that MPC and MCC had agreed on ratemaking for several natural gas utility issues. The stipulated agreement is attachment #3 to this order.

The two parties agreed to settle issues involving exploration and development expenses, American Gas Association dues expenses, revenues and expenses resulting from the operation of MPC's new natural gas liquids plant and gas market/supply issues. The monetary effect of the settlement, which is reflected in Exhibit 28, schedule TJM-1, pp. 2, 3, is to decrease the revenue requirement by \$114,738.00.

As a general matter, the settlement of these four issues is premised upon updating the various expenses, revenues, market and supply to reflect recent actual experience and events. Budget projections, where formerly used by MPC, are replaced with actual data. The American Gas Association dues expense is greater than that included in MPC's direct case, but it is reflective of the projected recurring expense and is adjusted to exclude allocated amounts relating to government relations, promotions to increase consumption and "image enhancement."

The MCC and MPC made brief, informal presentations to the Commission on May 2, 1989, where they each explained their position in support of the settlement. Opposition to the agreement was not stated at the meeting, nor at the formal public hearing.

The Commission finds that the settlement, as proposed, serves the public interest and, therefore, approves it.

#### PART H

##### THE 16" AND 20" PIPELINES

MPC proposed, through testimony of its Vice President for the Natural Gas Utility, David A. Johnson, to include in rate base the most recent capital investments made to build a 16" diameter natural gas pipeline system:

The Commission approved the south segment for inclusion in the Company's rates in Docket No. 87.1.5, Order No. 5260. The Company is now asking that the investment in the north segment and the Cobb loop be added to rate base with the appropriate adjustments to our

cost-of-service to reflect the balance of the new line. (Exhibit 39, p. 6)

Order No. 5260 discussed the history of the 16" pipeline project, and approved an agreement between the MCC and MPC which specified that the south segment of the pipeline was, at that time, used and useful, and that it should be ascribed a rate base value of \$14,560,261.00. Rates were not permanently changed to take account of this rate base addition until a rate decrease in docket 86.11.62 sub 10 was approved in early 1988.

The interim order in this docket, No.5360a, explained the magnitude of the 16" pipeline project:

As an aside, the PSC notes that the pipeline and associated facilities will have increased MPC's rate base by about 26% (south half - \$14,560,261 + north half - \$15,892,399 + gas processing plant to meet pipeline specifications - \$3,833,834 + compatible pipeline from nearby storage facilities - \$2,439,673 + additional compression-estimated at \$8,000,000 divided by the most recent gas rate base without pipeline costs of \$170,024,021).

Mr. Johnson requests that all the above mentioned costs be included in rate base, except the estimated compression costs.

To bolster his request, Mr. Johnson asserted that the 16" facilities are being used:

Q. Is the project fully completed at this time?

A. No. Although the line is in service, there is some work remaining

on the pipeline and that will be finished in 1988.

That work will include: final re-vegetation along the right-of-way on the north segment; a final, as-built survey of the entire line; and completion of farm tap and city service conversions from the 20-inch to the 16-inch. Because the line size was reduced, additional compression will also need to be added at Cut Bank. The first compressor unit and ancillary piping and building facilities will be installed in 1988 with the balance of the units scheduled to be installed in 1989. Rate treatment for these investments will be requested in future cases. This schedule spreads out and eases the financial burden of the compression investment on the Company, while inherently providing a phase-in of the rate impacts to consumers. In the meantime, the new 16-inch line must be run in parallel with the old 20-inch line until the additional compression is operable and the new system can handle the full system requirements alone (Exhibit 39, pp. 5,6)

Mr. Johnson's testimony was not disputed by the MCC, nor any other party.

As noted above the 16" and 20" lines are, and have been closely interrelated. Another interrelationship between the 16" and 20" pipelines arises from the the PSC's August 18, 1986 order No. 5057c, docket 83.11.82, which requires cracked weld monitoring for five years for the 16" pipeline as a condition of approval of its serviceability. Although the 16" line has undergone pressure testing, the addition of powerful compressors during 1989, and the

line's subsequent use during peak winter periods, will be the true test of the mettle of the 16" line, and its cracked welds.

The Commission is impressed with the role the old 20" pipeline has played during the lengthy, and sometimes turbulent period in which the 16" pipeline facilities were (and are) being constructed. It is apparent from Mr. Johnson's prefiled direct testimony that substantial service was still being rendered from the 20" line at the time of MPC's filing. At the hearing, the Commission staff attempted to elicit a meaningful response from Mr. Johnson about the remaining useful life of the 20" line:

Q. To your knowledge, has anything ever been presented to the Commission demonstrating that the old pipeline is unfit?

A. Well, I remember back in 1983 bringing a box of rusty bolts over here to show to everybody that were pretty frightening, as well as, I think, some pictures of previous ruptures, and there were a number of discussions, I think, back in that time frame about the condition of that old pipe. I would be happy to bring the rusty bolts back if you would like to see them." (Transcript p. 1357).

Mr. Johnson's prefiled direct testimony, which specified that MPC is, and has been relying on the 20" pipeline to ease its financial burden through an extended construction schedule, seems to be contradicted by his glib response at the hearing, which implies that the 20" line is, and has been, dangerous.



Additional cross-examination of Mr. Johnson resulted in a request for an MPC analysis of potential uses for the 20" pipeline.

The response, a six-page document entitled "MPC Response to Provide No. 13," is rife with references to a 1985 agreement to sell 16 miles of the 20" line to Curran Enterprises. Several of the options studied seem to hinge on this agreement. For example: "Use of the 20-inch for gas transmission is affected by the Company's 1985 agreement to sell the portion of the line between M.L. #3 and Wolf Creek in settlement of the then pending condemnation action and other issues with Curran Enterprises." The Commission is concerned that this agreement will prevent management from objectively exploring uses for the 20" pipeline.

Since the above mentioned cracked weld monitoring program extends through 1991, the Commission is exceptionally reluctant to render a decision which would imply, in any way, that rate base allowance for the 16" pipeline is permanent. For example, if the monitoring process detects flaws which render some or all of the 16" line unusable, its inclusion in rate base would likely be questioned. Likewise, MPC should consider its course very carefully if it intends to salvage the 20" line before the monitoring process is completed. The 20" line appears to be a valuable, and inexpensive buffer should the 16" line fail.

The 20" line is (and has been) extremely important, when considered in the context of the 16" line. In addition, and

perhaps apart from the 16" line, its future use must be considered.

Finding No. 5 in interim order 5360a in this docket makes abundantly clear that the Commission expects a full, and formal discussion of potential uses for the 20" line before retirement. This testimony needs to include discussions about using it: For storage; As a telecommunications right-of-way in a manner similar to other pipelines used for this purpose elsewhere in the United States; and, Other uses that a diligent management may conceive. A complete discussion of the newly revealed Curran arrangement must also be included.

It is only with the above stated conditions that the PSC finds rate base treatment (and associated revenues and expense) acceptable for the 16" facilities, as requested by Mr. Johnson. MPC has informed the Commission staff that it intends to file a general gas case in late 1989. The Commission expects completely developed testimony on these issues to accompany its filing.

Interim Order 5360a also requested testimony on cost savings and enhanced revenue producing capability which should certainly be stimulated by the 16" line or both the 16" and 20" lines. The Commission orders that this testimony be filed with MPC's next case.

PART I

RATE BASE, REVENUES, EXPENSES, AND REVENUE REQUIREMENT

After consideration of the stipulation in the gas portion of this Docket, all other issues affecting MPC's gas revenue requirement are fully discussed in the electric portion of this Docket. The effect on the gas utility is the result of allocating between MPC's electric and gas operations. The following table shows the effect that various adjustments have on revenue requirements:

The Commission finds that an increase in revenues of \$6,285,561 is needed to allow MPC the opportunity to earn 10.62% on its rate base, as follows:

## PART J

GAS RATE DESIGNGas Rate Design Issues

In Prefiled Direct testimony Mr. Corcoran discussed MPC's proposal to increase gas revenues by 14.67 percent. MPC derived the proposed natural gas 'design' rates by increasing the nongas cost revenue portion of the current natural gas 'design' rates by the requested revenue increase, called a "uniform percentage basis."

Mr. Corcoran explained that MPC used a methodology to increase gas prices on an interim basis that has previously been used for the same type of adjustments. He stated the increase was implemented on the basis of a uniform percent increase to the nongas costs, or the nongas component of rates, stating that the gas cost component is set by a different proceeding. (TR 1344.)

One intervening party, Stone Container Corporation, submitted gas rate design testimony. Mr. Jan Michael testified that: 1) MPC's proposed 14 percent rate increase to the Interruptible class is inappropriate; 2) an across the board system-wide rate increase should not be adopted and MPC should propose rates that move in the direction of cost of service; and 3) no rate increase should be assessed the Interruptible class.

MCC's Post-Hearing Opening Brief states that gas revenues should be increased about \$400,000 above the interim level. MCC's Post-Hearing Reply Brief notes that because gas rate design was not addressed in this docket, any increase in gas rates arising from the current proceeding should be on a uniform percentage basis (p. 34).

LUIG's Post-Hearing Opening Brief argues that cost-tracking principles of economics, as well as fairness considerations, require rejection of MPC's proposed across the board gas rate increase. It is also argued that the Commission should modify its interim Order No. 5360a, which also was an across-the-board increase. According to LUIG, the Interruptible class should get no increase in gas rates. LUIG's Post-Hearing Reply Brief notes that the Commission took administrative notice of Docket No. 87.8.38 during the hearing, and reasserts the contentions raised in its opening Brief (p. 10).

MPC states the results of its compliance COS study, pending motions notwithstanding, indicate the Interruptible class should receive a decrease of up to 12.41 percent. (MPC's cost study justified a larger percent decrease of up to 33 percent, according to MPC.) MPC added that since costs change over time, any change in cost allocation can change all class cost responsibility. Accordingly, it would be arbitrary to assign a rate increase to one customer class while decreasing another class' rates without having a final decision on the appropriate cost allocation information.

MPC's Brief also points out that the implementation of new rates from Docket No. 87.8.38 will have to be developed in a two-step process, given the expected relative timing of final orders in Docket No. 87.8.38 and this docket: rate structure changes from Docket No. 87.8.38 will be used to develop "base rates" for that docket's test period. All other applicable rate changes since that docket will be applied to these "base rates." The resultant design rates will then have to be applied to the test period data in the present docket to develop final rates. In addition, MPC notes that in its Transmittal Letter in the present docket, it requested waiver of the required allocated cost information contained in Statements L & M. LUIG could have objected at this time, but did not. Finally, MPC contends it is not appropriate to adjust only one customer class' rates without addressing the impacts on other classes.

The Commission finds that any increased gas revenue requirements be passed through as a uniform increase to nongas costs. The Commission also rejects the request of LUIG to modify the interim order in this docket. As a practical matter, this approval is a nonuniform percent increase with uneven distribution across classes, and the impact on the industrial class should be less than with a total uniform percent increase in rates.

The Commission finds the above approach expedient and fair until such time as Docket No. 87.8.38 can be finalized, which should be in the not too distant future.

#### Special Lessor Gas Rate

MPC also proposed a special lessor gas rate (SLGR), which was also proposed in Docket No. 87.8.38, but was later withdrawn.

MPC stated any revenue effect from the SLGR would probably be reflected in a future general gas case. (MPC DR MCC 1-86.)

Mr. Corcoran noted that the filing in this docket is similar to that in Docket No. 87.8.38. (TR 1343- 1351.) He explained that in the prior proposal MPC specified a free gas limit in the rate schedule. The Company then became aware that it may not be appropriate to include that specified free gas limit in the tariff, and determined that additional review time was necessary.

In the current filing, MPC has withdrawn the service charge which was included in the prior proposal. Mr. Corcoran noted that this rate will apply to new leases and that existing leases would not be subject to the rate unless contracts are voluntarily rewritten, contracts expire, or a declaratory ruling is sought. As existing leases expire, MPC will begin limiting free gas in the subsequent new leases. Mr. Corcoran affirmed that the existence of the SLGR will not modify or alter rights of parties under existing leases. Apparently, MPC did not serve notice of either this filing or its intent to offer this rate upon those

parties or persons who had expressed concern with the earlier version of this proposal in Docket No. 87.8.38.

MPC intends to use the market value of wellhead gas to set the rate for gas taken in excess of the limit specified in leases. The market value price will be the same price used by MPC to value gas for royalty and tax payments, which was \$1.37 in 1988.

Mr. Corcoran reemphasized the inability of MPC to estimate the net revenue impacts of the SLGR, adding that the free gas limit varies with each particular lease.

The Commission approves the Company's SLGR proposal, as filed. MPC will be expected to verify and account for the revenue impacts of this proposal in the next general case.

## PART K

### I. MPC'S CONSERVATION PROGRAMS

#### Background

Mr. David Houser testified on MPC's three conservation programs for which the Company seeks rate base treatment. This docket presents MPC's first request to rate base conservation investments. The three programs for which MPC seeks rate base treatment include: 1) Low-Income Weatherization Program (LIWP); 2) Super Good Cents (SGC); and 3) Electric Energy Conservation Purchase Program (EECPP). In addition, MPC's zero-interest loan program (ESP) is also reviewed. The following is a brief description of each of these programs. Later sections discuss



MPC's conservation programs, cost-effective criteria, intervenor testimony and the Commission's decision.

Low-Income Weatherization Program. Through the LIWP, MPC weatherizes customers' homes which meet both: 1) federal poverty guidelines; and 2) guidelines under the Low-Income Energy Assistance Program (LIEAP). MPC initiated the LIWP in 1987, and until this docket has not requested recovery for those costs. In 1987, MPC incurred \$329,349 in costs to weatherize homes under the LIWP.

Super Good Cents Program. MPC implemented the SGC program, in part, because the Northwest Power Planning Council (NWPPC) has the authority to recommend a "surcharge" if certain recommended conservation steps are not taken. In addition, MPC has a "residential exchange agreement with BPA." MPC also has other programs to avoid surcharges. (MPC DR PSC 1-463.)

In 1987, MPC offered a modified SGC program to accommodate its dual fuel system. MPC's SGC program appears designed with NWPPC's Residential Model Conservation Standards (MCS) in mind. MCS supports acquisition of "lost-opportunity resources." MPC's SGC program has two aspects, including certification and cash incentives. MPC offers certification ubiquitously in its electric service territory. Since MPC has in the past distributed the benefits of the residential exchange agreement to all customers, costs would be similarly distributed. (MPC DR PSC-1-47-iv.)

SGC cash incentives are only available in those areas where MPC gas service is not provided. Thus, incentives are available in the Billings area, but not in the Great Falls area. If GFG buys a portion of its gas from other than MPC in the future, MPC will reconsider its position relative to SGC incentives. (MPC DR PSC 1-41.) MPC does not appear to extend its conservation programs to wholesale electric cooperative customers.

As of December 31, 1987 MPC had certified and paid incentives on 12 SGC homes for a total cost of \$42,921.

Electric Energy Conservation Purchase Program. The EECPP involves MPC's purchase of electric conservation resources from all customer classes, as well as capability building. MPC began the EECPP in 1984 to identify, measure, and acquire conservation resources in the residential, commercial and industrial sectors. (MPC DR PSC 1-253, MPC Exh. No. 22, pp. 12-14.)

In 1984, MPC presented to the Commission its initial EECPP, seeking Commission direction on numerous issues associated with conservation acquisitions. MPC asserts the Commission would not provide the Company any feedback on how the Commission would treat such resources as compared with alternative resources: The Commission endorsed cost-effective conservation resources but, according to MPC, declined to define cost-effectiveness noting, in part, that such costs would have to be compared to "spot market purchases" or other resource options. (MPC Rebuttal Exh. No. 23, pp. 20-21.)

MPC expanded this program in 1987 to acquire pilot projects. MPC uses a life cycle cost (LCC)<sup>1</sup> approach to develop resource potential. In 1987, MPC incurred \$87,503 with the EECPP.

Energy Savings Plan/Zero Interest Loan Program. Although not included in MPC's testimony for ratemaking purposes, MPC also has a zero interest loan program to encourage energy conservation. The program covers electric and gas related conservation expenses. MPC first implemented the ESP program in 1978 to comply with Residential Conservation Service requirements. Under this program loans of up to \$2000 for up to three years were made to qualifying customers. In 1983, ESP II replaced ESP I. ESP II was expanded to include renewable energy options, increase the loan ceiling to \$3000, and require a four year payback. (MPC DR PSC 1-253.)

Through year end 1988, MPC had completed 31,263 of 31,706 audit requests and made 11,680 actual loans with an actual average loan amount of \$1,103. MPC's noted sum of outstanding balances and intentions (total commitment) amounted to 2.372 million dollars. No separate breakdown for electric and gas is available. (MPC DR PSC 1-458-i.)

MPC either expenses "or" takes tax credits to recover costs associated with this program. (MPC DR PSC 1-192.) The interest differential of these loans is credited against taxes which would otherwise be expensed, while manpower and miscellaneous costs are expensed. (MPC DR PSC 1-457-iii-a and 1-458-ii-a.)

Cost Recovery: Montana Statutes

MPC proposed to capitalize and rate base costs related to the LIWP, SGC and EECPP conservation programs pursuant to Sections 69-3-701 et seq., MCA. Costs incurred with MPC's zero interest loan program are covered by another statute. Section 15-32-107, MCA. These statutory provisions are reviewed below.

MPC includes research, development and promotional costs for recovery, and contends the Commission should encourage the Company to invest in conservation by allowing a rate of return no less than that for traditional supply options. Accordingly, both stockholders and ratepayers will receive a portion of the benefits.

MPC states it needs direction from the Commission on the sort of "accounting procedures" needed to handle conservation resources. (MPC Exh. No. 23, p. 23.)

The statutes governing rate base recovery of conservation investments are Sections 69-3-701 through 69-3-713, MCA, which apply to electric and gas utilities. These statutes direct the Commission to approve cost-effectiveness criteria for retrofit (the statute uses replacement, upgrades and enhancement terms) conservation investments placed in a utility's rate base. These statutes further state that the value of a conservation investment must be based upon the utility's avoided cost, as defined by the Commission. Avoided costs are defined as the incremental costs of energy and capacity.

For conservation investments, the Commission may permit a 2 percent increase in the rate of return on common equity relative to other investments, but only for 30 years. This section does not address the appropriate term for amortization, but leaves this matter to the Commission. MPC has suggested five years (MPC DR PSC 1-190), noting that no standard exists. (MPC DR PSC 1-457-v-d.) MPC stated that if it determines the additional return is needed in order to encourage comparison of supply and demand side options on an equivalent basis, it will request such an adder. (MPC DR PSC 1-189-vi-c.)

MPC contends that real levelized analysis is appropriate to compare the cost of alternative investments, but once an alternative is chosen and the investment made, original cost as actually experienced becomes the basis of rate treatment. (MPC DR PSC 1-188.) MPC added that while a real levelized cost stream could be structured which provides MPC the same total revenues on a discounted present value basis as original cost less depreciation (OC-D), MPC sees no valid reason to use such a method of cost recovery (i.e., real levelized). (MPC DR PSC 1-460-c.)

Section 15-32-107, MCA applies to conservation installations in "dwellings" for both gas and electricity. MPC uses this statute in conjunction with its "low interest loan" conservation program. (MPC DR PSC 1-38.) This statute states, in part, "... a public utility ... may compute the difference between interest it

actually receives on such transactions and the interest which would have been received at prevailing average interest rate for home improvement loans ...". This difference may be credited against either the electrical energy producer's license tax, or the corporation license tax. Section 15-32-107, MCA. MPC charges no interest under its low-interest conservation program.

The rate of interest MPC uses to claim a credit on the Energy Producer's License Tax is 12 percent. MPC provided a Commission notice (signed by then Chairman Bollinger on June 4, 1979) adopting 12.5 percent as the prevailing interest rate for home improvements. (MPC DR PSC 1-37.) MPC noted it is amenable to a review of this issue by the Commission. Since early 1985 MPC's best estimate of home improvement rates ranged between 12.12 and 14.52 percent. (MPC DR PSC 1-188-g.)

Cost-Effective Conservation Analysis

MPC uses two methods to analyze conservation investments in order to estimate the optimal amount invested. Neither of these methods are used for the zero interest loan program. On an ex ante basis, MPC uses an LCC approach for both initial design and reinvestment costs. MPC defined the latter to arise when two measures have different lives and the shorter-lived measure needs replacement (reinvestment) prior to expiration of the useful life of the longer-lived resource. (MPC DR PSC 1-43-iv and MPC DR DNRC 1-08.) These conservation costs are computed, levelized, and compared to avoided costs. MPC analyzes conservation energy savings using computer simulations.

On an ex post basis, MPC monitors and statistically analyzes actual savings. (MPC DR PSC 1-44.) Savings reflect projections of reduced consumption based on typical weather data and standard operating conditions. (MPC DR PSC 1-252.) MPC computes the ratio of costs to savings, using both computer estimates and actual savings, to provide the conservation cost which is compared to avoided costs.

MPC's source of avoided costs depends on the fuel. First, for electricity MPC uses tariffed avoided costs to value conservation. MPC contends that using the "negotiated" option for Colstrip Unit No. 4 and the default tariff for conservation is not inconsistent: "... the cost of Colstrip 4 is not a relevant variable and quantity is predetermined, whereas with conservation

the cost is a relevant variable in determining the level of acquisition." (MPC DR PSC 1-45-i.) That is, MPC claims that use of the default tariff option is appropriate, asserting one cannot solve for price and quantity simultaneously: in order to solve for the available quantity of conservation resources, price must be fixed. (MPC DR 1-46-iv-a,b, 1-45-i, and 1-190-b.) Later, Mr. Houser testified (MPC Exh. No. 23, p. 7) that the negotiated option should be used with demand-side (DSM) resources only if these resource choices all have identical characteristics.

Second, and since the Commission has never had a formal gas avoided cost docket, MPC's gas cost analysis attempts to estimate the levelized cost of both supply and storage to meet an incremental load addition of one Mcf sustained for a 35 year period. (MPC DR PSC 1-189-vi-a.) MPC states that it has used a "profitability model" to calculate gas avoided costs to evaluate marketing efforts, e.g., the Smart Choice program. (MPC DR PSC 1-259-i-d.) MPC notes it has not refined any seasonal gas avoided costs and that in the present proceeding, the equivalent to the \$2.09/Mcf figure proposed in Docket No. 87.8.38 ranges between \$2.81 and 3.19/Mcf in real levelized terms. (MPC DR PSC 1-45-iv and MPC DR MCC 1-73, p. 21.) Table 9 summarizes how MPC computed costs and benefits for each program.



Table 9

Avoided Cost and  
Savings Analysis Includes

<u>Program</u>	<u>Electricity</u>		<u>Gas</u>	
	<u>Capacity</u>	<u>Energy</u>	<u>Capacity</u>	<u>Energy</u>
LIWP	No	Yes	No	Yes
SGC	Yes	Yes	N/A	N/A
EECPP	Yes	Yes	No	No
ESP	N/A	N/A	N/A	N/A

Source: MPC DR PSC 1-457. Energy and capacity savings were treated in the same manner, whether the analysis was based on computer modeling or statistical data.

## II. Commission Decision

### Gas and Electric Conservation Issues

As a prefatory remark, some parties have recommended the Commission either address certain conservation policy issues or direct issues to the Least Cost Planning Advisory Committee (LCPAC). Of course issues the Commission may include in an order may still be voluntarily addressed by the LCPAC or MPC. A few examples illustrate the proposed distinction.

MPC's Mr. Houser stated that the LCPAC, at this point, could potentially address in great detail how these issues should be resolved. (TR 743.) By "issues," Mr. Houser appears to be referring to those issues he listed during the hearing. In describing what the Commission should do at this point concerning

conservation, Mr. Houser responded by listing issues the Commission should address which overlap those to be addressed by the LCPAC. (TR 743.) However, MPC states it is seeking from the Commission guidance for determining cost-effectiveness and rate treatment. (TR 743.) Mr. Houser's Prefiled Rebuttal states the Commission should hold off on a docketed proceeding to address other than basic issues until the LCPAC submits its recommendations to the Commission. (MPC Exh. No. 23, pp. 18-19.)

HRC's Dr. Power was also asked to augment his prefiled testimony on what steps the Commission should take in an order as opposed to providing direction to the LCPAC. Dr. Power's prefiled testimony suggested that the Commission should provide general guidance about the direction the Commission thinks good utility management should take in the area of conservation. (HRC Exh. No. 3, p. 25.) As in his initial testimony, Dr. Power stated that the Commission should allow the LCPAC to continue its work, and allow the conservation investment program, as well as the agreement between District XI and MPC, to go forward. One specific option would be to allow conservation rate basing and amortization acceptable to MPC. (TR 1404 and HRC Exh. No. 3, pp. 55-59 and 66.)

Dr. Power added, "The Commission needs to help to overcome some of those disincentives by making some positive finding that the utility's intent to begin acquiring capability and to begin purchasing conservation resources when they are needed at a

cost that's appropriate to make cost-effective conservation purchases, that that plan is appropriate." (TR 1404.)

The Proposed Findings of Fact submitted by District XI and HRCDA (HRC) stated in part "... the Commission requests the Committee's recommendations on the following issues." The issues listed all regarded different aspects of competitive bidding (p. 23). The document goes on (pp. 28-29) to propose language whereby the Commission would instruct MPC and other LCPAC participants to review and report on a series of questions related to conservation investments, all taken from Dr. Power. (HRC Exh. N. 3, pp. 5-56.)

DNRC's Mr. Cartwright stated that the LCPAC is where a more complete analysis of cost-effective conservation should take place, adding that actions of the LCPAC are not all that is necessary to develop a LCP: MPC will have to make an extensive effort itself. (TR 992-993 and 1436.) Mr. Cartwright added that the LCPAC is the way to start determining the relationship between conservation investing and least cost planning. (TR 1001.) When asked what steps the Commission should take now, Mr. Cartwright replied: 1) more direct Commission involvement in the planning process; 2) make MPC feel comfortable from a financial perspective with conservation investing; and 3) offer MPC more encouragement possibly in the form of an Order to develop conservation. (TR 1001.) Importantly, Mr. Cartwright stated that the LCPAC should address certain incentive mechanisms for MPC to pursue cost

effective Demand Side Management (DSM) measures. (TR 1434.) DNRC's Post-Hearing Brief states the Commission Staff should participate in the LCPAC (p. 13).

NPRC's Mr. Schneider testified that the Commission should charge the LCPAC with developing a least cost plan (LCP), including a competitive bid. (TR 919.) When asked how the Commission and its staff should relate to the LCPAC, Mr. Schneider stated it is probably appropriate for the Staff to watch the proceedings given the public interest role the Commission will play in the end. (TR 936.)

The Commission finds that while the institutional structure is changing, as evidenced by both MPC's pursuit of conservation as a resource, and the existence of the LCPAC, there exists sound reasoning to allow MPC room to both expand its knowledge base and improve upon its current effort. The Commission is encouraged by MPC's effort and strongly supports the utility's pursuit of cost-effective conservation resources. In this order the Commission will, however, make only those findings necessary to facilitate the pursuit of cost-effective conservation. The Commission further intends, as the following findings indicate, to allow MPC the opportunity to explore issues that do not appear ripe for a definite Commission decision at this time.

At a future time, MPC can bring before the Commission a filing that addresses both concerns raised in this docket, and the efforts of the LCPAC.

### Technical and Policy Related Conservation Issues

#### Market Failure, Programmatic Conservation Nonparticipant Impacts, and Conservation Cost-Effectiveness Perspectives

This is the first docket in which MPC has sought rate-making treatment for programmatic conservation investments. It seems appropriate to review the underlying arguments for the investment in conservation by a utility, as opposed to a strict reliance on price-induced conservation efforts by consumers. Market failure is the principal argument raised in support of active conservation investment by a utility. In turn, programmatic conservation requires a utility to consider the relevant cost perspective from which conservation investments will be analyzed. The choice of perspectives ranges from the utility's to society's, including that of the ratepayers. Depending on the perspective chosen, impacts on nonparticipants and participants arise. This section will review these issues.

The question as to whether MPC should take on the responsibility of investing in programmatic conservation is an initial issue. Due to "market failure," most intervenors support MPC's involvement. MPC, however, has stated that perceived failure by the market to incorporate conservation technologies is not

considered a viable reason for pursuing conservation purchase programs. (MPC DR PSC 1-46-iv-c.) On the other hand, MPC states it should be allowed to develop and use the various energy conservation programs to stimulate participation. (MPC DR PSC 1-250-ii-d.)

MPC contends that if the Commission allows rate base treatment of conservation expenditures determined to be cost effective by comparison to the utility's avoided cost, nonparticipant (NP) impacts may arise. MPC also stated that NP impacts should not squash conservation programs, noting such impacts can be minimized by selecting measures that cost less than the utility's marginal cost of new resources, and by designing programs to allow the majority of ratepayers to accrue benefits. (MPC DR PSC 1-43.)

Mr. Roger Colton, testifying on behalf of HRC, stated that DSM programs should not need to pass a "no-losers" test to be implemented, noting a DSM measure passes a cost-effective test if it lowers a utility's total revenue requirement. (HRC Exh. No. 3, pp. 12-13.) Mr. Colton contends that the "no losers" test is fallacious. While specific to low-income concerns, Mr. Colton refers to market barrier arguments (ie, market failure), as to why MPC should focus special conservation efforts on low-income ratepayers. Mr. Colton asserts that the Commission should insert itself into "social welfare issues," that "economic efficiency" is historically of second importance to "equity" considerations, that

DSM programs are not "social welfare programs," and finally, that DSM programs are neither system planning nor rate design issues. (HRC Exh. 3, pp. 18-19, 28, 43 and 45.)

In contrast to Mr. Colton, the NWPPC testified that equity impacts of minimizing the total societal cost of providing energy resources are best dealt with through rate design and ratemaking. (NWPPC Exh. No. 1, p. 6) The NWPPC's testimony illustrated the relative revenue and average rate impacts of alternative cost perspectives.

Dr. Power agrees with the NWPPC on the merit of allowing utilities to pay up to full avoided cost to obtain conservation resources, adding that MPC has correctly rejected the no-losers test. (HRC Exh. No. 3, p. 35.) Dr. Power also suggests that the Commission direct MPC to not use just its own costs but rather, when screening measures for utility investment, use the total costs to the customer and the utility, especially when cost sharing with a customer occurs. MPC noted that those intervenors who commented on the appropriate cost-effectiveness test support a societal-based marginal cost test in lieu of other alternatives, such as a no-losers test. (TR 741.)

While some consensus exists on the market failure issue, not all parties agree that MPC should be provided with incentives to correct for market failure. DNRC recognized market failure indirectly when it stated 75 percent of the realizable conservation resource is not obtainable through a price response. (DNRC Exh. No.

5, p. 8.) DNRC noted that the computation of avoided costs attempts to minimize system revenue requirements. (TR 995.) At the same time, DNRC states the cost-effectiveness of conservation should be reviewed from a societal perspective. (TR 997.)

The Commission finds valid the market failure arguments raised by intervenors. As a result of market failure, substantial conservation resources that are cost-effective, relative to a utility's other resource options, go undeveloped, therefore raising the total cost of service. The Commission is cognizant of the rate impacts that ensue from not taking the "no-losers" approach. The NWPPC is correct in stating rate design policy decisions can be used to mitigate the impacts that result from minimizing the total cost of service to all ratepayers.

The Commission is not at all convinced that a serious effort has been made to address certain contentions underlying the market failure argument. There was a curious absence of solutions to mitigate this problem raised by parties in this docket. While the high discount rate issue cannot be directly corrected, increasing consumers' knowledge of expected future price increases, the existence of other state agencies' conservation programs, etc., may go a long way toward wearing down the market failure problem. The Commission would encourage MPC to make a serious effort to address this problem, as the Commission has done in past orders (see e.g. Order No. 5091c, Finding of Fact 278).



The Commission also believes cost sharing may alleviate some of the nonparticipant impacts. The Commission would encourage MPC to pursue this idea for all sectors. Unwillingness to make contributions should not deter MPC's acquisition of cost-effective resources.

#### The Commission's Welfare Function Role

Mr. Gerald Mueller, testifying on behalf of HRC, focused on State and Federal energy assistance programs combined with the availability of conservation resources from low-income ratepayers.

HRC concludes the Commission should direct all utilities (their ratepayers) to underwrite an expanded and aggressively paced Low-Income Weatherization Program, if the Montana legislature does not. (HRC Exh. No. 1, p. 9.)

Generally, Mr. Mueller clarified the intent of his testimony to be that the traditional welfare function, the bill subsidy program, should be separated from the energy efficiency function. (TR 608.) Mr. Mueller pointed out that the Idaho PSC recently issued an order directing its utilities to prepare a plan targeting low income conservation (TR 604), and added that House Bill No. 100 was passed into law in the last Montana legislature. This bill directed the Montana Department of Social and Rehabilitative Services to work with Montana utilities and the various Human Resource Development Councils to prepare a long-

range, low income weatherization plan based on utility funding, for presentation in the 52nd legislature. (TR 606.)

The Proposed Findings of Fact submitted by HRC stated in part: "In general, the State should target its resources to meet the 'welfare function': fuel bill assistance. The PSC and the utilities should focus upon the 'conservation function': low income weatherization" (p. 3).

DNRC listed two reasons for targeting conservation programs to the low-income. First, you have to start somewhere, so why not start in an area that has both community and utility benefits. Second, because broad-based support for installing conservation is needed, one way to gain such support is with programs that reach a large number of people. (TR 1000-1001.)

This Commission has been encouraged by certain intervenors to use conservation as a policy tool to address income distribution problems in Montana. The parties have indicated efforts are ongoing at the legislative and agency level to address these issues. As Mr. Mueller noted, some of these issues have only recently emerged.

The Commission does not want to either duplicate or usurp these other efforts. In regard to focusing conservation efforts on low income ratepayers, the Commission believes it can give direction to MPC which would not appear to clash with other efforts. To the extent cost-effective conservation opportunities

exist with the low-income, MPC is encouraged to pursue these opportunities. As DNRC has stated, to focus efforts in this area achieves two objectives simultaneously (TR 1000-1001).

#### Preapproval and Least Cost Planning

As noted in this order, relevant Montana statutes require the Commission to value conservation investments using avoided costs. It does not matter whether the conservation resource is to displace gas or electric production. Furthermore, although these statutes focus upon the residential class, MPC has correctly pursued cost-effective conservation resources from all classes. Clearly, to arrive at the best estimate of avoided costs, all potential resources, both supply and demand side, must be considered. Otherwise, there arises the distinct risk that conservation investments will be improperly valued. Consequently, the proper determination of avoided cost requires a utility to review the whole menu of resources.

MPC states it does not seek "preapproval of specific investments." (TR 743.) HRC's Proposed Findings of Fact states all Montana utilities are encouraged to fully consider Integrated Resource Planning (p. 32). Dr. Power stated LCP does not involve preapproval, adding that utilities that have urged preapproval do so in an attempt to change the social contract between regulators and the utility, so as to shift the risk of new investments. (TR 1401-1402.) In response to cross-examination, Dr. Power stated

that the sharing of risk can stay exactly where it is now, in the utility's lap, but that the LCPAC can attempt to narrow the size of the risk. (TR 1426.)

The issue of preapproval is somewhat nebulous. Certainly at the policy level the decisions of this Commission impinge on utility planning and policies. For example, the Commission has attempted to nudge utilities into the consideration of alternatives to traditional resource acquisitions (ie, Order No. 5091c).

On the other hand, the Commission does not micro-manage utilities. MPC, for example, made its own determinations regarding the amount and cost effectiveness of conservation resources brought before the Commission in this docket.

This approach seems to work quite well and the Commission sees no point in changing this relationship.

#### Ratemaking Treatment: Expense or Ratebase

In regard to ratemaking treatment for R&D expenditures, MPC noted that intervenors generally agree that some sort of recognition, whether rate basing or expensing, is appropriate. (TR 741.)

Dr. Power distinguished two types of issues including accounting and cost effectiveness issues. (TR 1392.) In regard to accounting issues, Dr. Power stated it is appropriate for conservation R&D to be treated in a similar fashion as R&D for

typical supply side resources. (TR 1390.) Dr. Power noted that costs associated with research and data-gathering activities are simply expensed as part of the normal expenses of a well-run utility. (TR 1391.)

Dr. Power, however, distinguished R&D costs that could be accumulated as an investment aimed at developing a specific resource. These R&D costs could be ultimately treated, if the project goes forward, as part of that resource's acquisition and capitalized and amortized along with other associated costs. (TR 1391-1392.) This point appears consistent with Dr. Power's position that conservation R&D efforts that do not immediately produce energy savings are acceptable and can be ratebased (see HRC Exh. No. 3, p. 42). Dr. Power testified that MPC needs to be told that reasonable conservation R&D efforts that do not immediately produce energy savings are not only acceptable but expected. (HRC Exh. No. 3, p. 42.)

MPC appears to interpret Dr. Power's testimony to mean that R&D expenses, assumably the level to be rate based, must be justified through the cost-effective resource acquisitions. (MPC Exh. No. 23, p. 10.) To MPC there appears a "simultaneity" between the cost-effectiveness test and the level of approved R&D expenses.

Mr. Litchfield, on behalf of NWPPC, stated that conservation investments should be afforded at least the same rate treatment given all other resources, such as rate basing. (TR

712.) Mr. Litchfield added that some programs which tend to be more oriented toward marketing or technical information, get expensed due to uncertain long-term benefits. (TR 714.)

DNRC believes MPC's request to rate base conservation is reasonable and cost effective, based on MPC's request to obtain its next resource at a levelized cost of 47.2 mills. (DNRC Exh. No. 5, pp. 21-23.) DNRC's post-hearing brief stated the Commission should order MPC to evaluate alternative methods of accounting and cost recovery for conservation and report back to the Commission within a year or two (p. 10).

As an example of the origin of certain expenses, MPC noted that with the EECPP, \$46,000 of the \$87,503 sought for ratebasing was spent on direct investments, and the balance on R&D. (TR 764.)

A number of issues are raised in this section. The first involves ratemaking treatment for conservation related costs. The second involves the sort of R&D efforts a utility will pursue to in part identify and develop conservation resources. A third involves what conservation related costs, including R&D, should be rolled into a cost-effectiveness test. As indicated by MPC, these issues are to one extent interrelated, creating the apparent "simultaneity" issue.

The Commission finds relevant a brief discussion through illustration of the simultaneity issue. MPC's R&D effort to identify a conservation potential will result in costs being

incurred. This R&D effort is a valid effort, the total costs of which would be reviewed after the fact by the Commission's revenue requirement bureau. These same costs after the fact are sunk, and in some sense "common" to numerous potential conservation investments. Thus, it seems such costs would be correctly excluded from any latter specific conservation cost-effectiveness analysis, such as for adding insulation to a consumer's attic or for an aggregation of similar efforts.

#### Conservation Cost Effectiveness: Simulation versus Monitoring

The statutorily required cost effectiveness test for conservation investments, both gas and electric, is the utility's "avoided costs." MPC used two tools to analyze the cost effectiveness of conservation, an ex ante computer simulation and an ex post monitoring and statistical analysis. (TR 762.) Both tools involve estimates of avoided costs and savings. An underlying issue involves the concept of "take-back" effects which is addressed below.

On behalf of HRC, Mr. Mueller stated that MPC's LIWP saves both gas and electricity at less than MPC's avoided cost for both fuels. HRC's conclusions stem from MPC's economic analysis of LIWP. Mr. Mueller states that MPC's computer modeled savings, not statistical estimates, should be used.

Dr. Power also testified on MPC's cost effectiveness analyses. Dr. Power has technical problems with both the computer

modeling and the statistical estimates of energy savings. (HRC Exh. No. 3, pp. 68-70.) Dr. Power contends that MPC understated avoidable costs, resulting in analyses which are biased against conservation.

As a general matter, the Commission finds that both ex ante computer modeling and ex post productivity monitoring are valid efforts that MPC should pursue. That the results from the two efforts differ is not surprising and, in part, turns on the "take-back" effect addressed in the next section.

#### Conservation Cost Effectiveness: The "Take-Back" Effect

Several parties raised the concern of take back as regards the estimated savings of conservation investments (e.g., HRC Exh. No. 3, p. 37). In economic terms the take-back effect attempts to describe and predict the impact on savings of the installation by a utility of conservation resources in a consumer's residence. The consumer experiences a real income increase which, in turn, leads to increased energy consumption. Thus, ex post energy savings are reduced below ex ante projections. (HRC Exh. No. 1, p. 16.)

Dr. Power recommends the Commission address the issue in favor of not recognizing the reduced savings due to take back. Dr. Power grounds this position on the argument that there are also benefits that flow to customers in the nature of comfort and



convenience when they do not reduce their consumption by as much as expected. (HRC Exh. No. 3, p. 37.) That is, Dr. Power appears to argue for a social welfare economic analysis that includes benefits due to increased energy consumption (ie, consumer surplus). Dr. Power states MPC implicitly has adopted a social perspective, given its computer modeling did not net out the take back effect.

Mr. Mueller contends that since simple projections of measured savings do not account for other changes (ie, a fuel price increase rising faster than income), and the results of these changes, the simple projections of take back should not be relied upon in cost-effectiveness determinations (HRC Exh. No. 1, p. 16).

Mr. Mueller's testimony reveals a 25 percent take back from the Hood River Conservation Project experiment. (HRC Exh. No. 1, p. 16.)

The Commission's findings on the "take-back" effect address two issues, the merit and the estimation method. First, with regard to the merits, the Commission believes the effect should be accounted for by MPC in its cost-effectiveness analysis.

At this point in time the Commission encourages MPC to refine its estimates. If take back is as large as 25 percent, and is not recognized, MPC could be overinvesting, other things being equal, in those types of conservation resources where take back occurs.

The Commission finds an apparent inconsistency between Dr. Power's proposal with regard to the take-back effect, and the absence of a proposal with regard to rejecting the "no-losers"

strategy in favor of what one party terms the "Marginal Conservation up to Marginal Generation." (NWPPC Exh. No. 1, p. 9.)

With the take-back issue Dr. Power argued that the effect should be ignored due to offsets in value associated with increased consumption. On the other hand, Dr. Power did not recommend that the value associated with reduced consumption resulting from higher average rates from the marginal "conservation up to marginal generation" strategy, relative to the "no-losers" strategy, be netted out.

The Commission also finds relevant a discussion on a possible alternative method of computing the take-back effect. At present, MPC appears to use a before/after analysis of the consumption of individual consumers. After accounting for weather changes, etc. the net effect is attributed to take-back.

Another approach would involve sampling by MPC of its customer base to develop a different experimental design. The design would feature control groups taken from its customer base having similar demographic characteristics to those participating in MPC's programmatic conservation effort. These control groups could indicate the impact of non-conservation explanatory variables, such as income changes, price changes, and weather, and may be one way to cross check the existing before/after analysis.

Conservation Avoided Costs: Tariffed versus Negotiated

MPC used tariffed avoided cost rates from the 1987 default tariff to analyze the cost effectiveness of electric conservation investments. (TR 729.) Gas avoided cost tariffs do not exist. Whether MPC should use this approach or the "negotiated" option is an issue in the evaluation for cost effectiveness of gas or electric related conservation investments. MPC stated the "negotiated" option should only be used with DSM resources that have identical characteristics.

Dr. Power commented on using the default tariff option or the negotiated option to value conservation resource avoidable costs. (TR 1409-1411.) Dr. Power states that the negotiated option is appropriate but requires a "base case" to be established.

Dr. Power stated that MPC has realized there is an inconsistency between how Colstrip Unit 4 or any other utility resource would be treated, and how conservation is being treated. It should be possible to develop the equivalent to the negotiated option for conservation, and MPC is pursuing the issue to present to the LCPAC (TR 1411). However, MPC's Rebuttal Testimony states it cannot support the use of any avoided cost value other than that published in the default tariffs. (MPC Exh. No. 23, p. 8.)

Since there are no tariffed gas avoided cost prices, MPC must be modeling savings and costs on a some sort of "negotiated" basis (ie, MPC's "profitability model") for gas related conservation investments.

The Commission finds that this issue really appears to involve the degree to which it makes sense to refine (de-average) the avoided cost estimates used to value conservation. Use of the default tariff option is an extreme averaging process. In order to use the negotiated option, MPC would need to apparently re-run PROMOD for each conservation item and/or program. At some point the costs of rerunning PROMOD would not offset the benefits of more refined avoided costs. To the extent practical, MPC should use the negotiated option with future conservation analyses.

It should be noted that the default tariff option also requires a "base case" from which avoidable costs are computed. Thus, the issue of a base case is not unique to using the negotiated option, as Dr. Power suggests. In addition, and as noted, in the absence of gas avoided cost tariffs, MPC arrived at gas avoided costs for conservation, apparently through some type of negotiated approach (although termed a "profitability model").

Avoidable Costs: Capacity and Energy Costs and Savings

One technical issue concerns whether MPC analyzed the cost effectiveness of electric and gas conservation investments using both energy and capacity costs and savings. For the Low-Income Weatherization Program, as an example, only energy was used.

(TR 762 and Table 9 above.) In this example, it appears that MPC will have understated the value of conservation in its analysis. MPC excluded capacity costs arguing that there is no change to the connected load with an existing facility. DNRC, citing MPC's argument, also assumed retrofits provide no peak resources. (DNRC Exh. No. 5, p. 11.) However, Mr. Mueller's LIWP testimony also suggests MPC may be inefficiently investing in conservation when he states: "Mr. Houser's analysis underestimated the savings from the program, further strengthening the conclusion that the program passes a strict economic efficiency test." (HRC Exh. No. 1, p. 13.)

The Commission finds that MPC appears to incorrectly exclude the avoided costs and savings associated with capacity in its cost-effectiveness analysis. First, from Table 9 it is clear that two programs, both retrofit, were treated differently. With the LIWP, MPC excludes any capacity savings and avoided costs. On the other hand, the EECPP includes capacity savings and avoided costs. Both programs involve the residential sector. Although MPC included the value of capacity with the EECPP, DNRC appeared not to do so. (DNRC Exh. No. 5, p. 11.)

Second, although totally excluding any capacity savings and avoided costs appears logically unsound, the total inclusion of the same amount of savings as for new homes also seems logically in error. Somewhere in between lies a correct answer. MPC may have to analyze the coincidence factors of peak loads for its conservation programs.

Third, the Commission is concerned about the impacts of MPC's claim that even without the capacity savings certain conservation investments were cost effective. (MPC Exh. No. 22, p. 11.) MPC used this argument to show the cost effectiveness of one conservation program, as described by Mr. Mueller. The concern, however, is that the argument used to prove MPC's investments are cost effective raises the probability that MPC created "lost opportunities" in the process. That is, if capacity savings were added, MPC's level of conservation investments would increase. MPC should invest in conservation up to the point that marginal benefits and costs are equated. MPC appears to admit, and Mr. Mueller confirms that marginal cost and benefits were not equated.

Avoided Costs and Asymmetric Risk Among Classes

Since MPC targets conservation programs to different customer classes, the comments of MPC witness Mr. Stauffer concerning the relative risk of conservation investments for different classes are of interest. Mr. Stauffer's prefiled rebuttal addressed a comment by LUIG witness Ms. Wetmore that the levelization of the rates shifts the risks of inaccuracy from Colstrip Unit 4 to MPC's customers: "It is rather ironic that the industrial intervenor would raise the question of risk. The risk assumed by this contract is trivial in comparison to the risk assumed by MPC when obligated to serve the load of an industrial customer." (MPC Exh. No. 8, p. MAS-10.)

Through discovery, Mr. Stauffer was then asked: "Does the stated risk comparison hold by customer class or are all classes equally risky to serve?" Mr. Stauffer responded as follows: "MPC has not conducted such a study. As a general rule, the classes with large numbers of customers and small individual average consumption in comparison to classes with a smaller number of customers and larger individual average consumption, would be less risky." (MPC DR PSC 1-464.)

This is an important acknowledgement by the utility which has at least two implications. MPC's conservation cost analysis does not appear to explicitly address "risk" type cost differentials between classes. MPC stated that there are "risk" related costs that vary with the customer class such that classes

with large numbers of customers (and smaller individual consumption) are less risky. (TR 215, 216.) MPC's Mr. Stauffer added that the variability in risk per class "may" also impact the optimal level of conservation investments. (TR 216.)

On the same issue, Dr. Power added that because of the unpredictable variability in load with, for instance, large industrial users, the quantification of benefits from conservation investments for these customers is unknown. (TR 1407.) Dr. Power suggested precise risk differential information may not be needed, but that it may be good judgment to not focus programs towards ephemeral loads. He also stated that if greater risk is expected with a particular customer, that customer could contribute more towards the investment. (TR 1408.) Dr. Power recommends MPC plan conservation programs to serve all sectors so as to improve the equity distribution of the benefits, so that potential nonparticipants are not left out. (HRC Exh. No. 3, p. 34.)

The Commission believes that because of this acknowledged risk factor, MPC could be directed to impute a higher cost of conservation investments for industrial and commercial classes than for residential. Alternatively, MPC could be directed to prioritize its conservation efforts by focusing first on low-risk groups consistent with Dr. Power's comments. At this time the Commission chooses to simply alert MPC to its concern that conservation efforts not be focused on risky investments. Perhaps,



as Dr. Power states, riskier customers could make a contribution to the cost of the conservation investment to reduce the risk.

#### Optimal Conservation Investments and Asymmetric Risk

Another technical issue involving asymmetric risks and optimal conservation investments arises because of the inability to perfectly forecast future avoided costs on which conservation investments will be based. Dr. Nordell indirectly touched on this issue in his testimony, but only with regard to Colstrip Unit No. 4. (DNRC Exh. No. 1, p. 26.)

Dr. Nordell analyzed the downside of two Colstrip Unit No. 4 purchase decisions and the worst possible outcome for each decision. The first is a purchase with the future unfolding in a way such that the purchase was a bad decision. The second was not to purchase with the future consequence that replacement power is very costly. DNRC used these scenarios to demonstrate that on a NPV basis the downside risk is asymmetric with a Colstrip Unit No. 4 purchase minimizing risk.

This analysis by DNRC can be extended to optimal conservation investments. DNRC was asked how it had factored risk asymmetry into its evaluation of MPC's conservation potential. (DNRC DR PSC-363.) DNRC responded that it adjusted for risk in conservation by reducing the size of the conservation resource to account for differences between the amount achievable and the technical potential.

The Commission finds DNRC's response surprising and also counter-intuitive. Because of the uncertainty in forecast avoided costs upon which basis such investments are made, it would seem that one would want to increase conservation investments rather than decrease the resource, other things being equal.

For example, a cent/KWH cost escalated (6%) and discounted (10%). for 30 years has an ascertainable NPV. A 1 percent deviation in the escalation rate creates different NPV calculations. When the difference between these change cases and the base case is computed, the greater difference in NPV is clearly associated with the higher change case escalation rate. Thus, if the deviations in escalation rates have equal probabilities of occurrence it would follow that an increased investment relative to the base case, not a reduction, is logical.

#### Seasonally Weighted Avoided Costs and Savings

While the relevant statutes require the use of avoided costs to value conservation, these provisions are silent on many technical issues, some of which have already been discussed. Another technical issue concerns seasonally weighting avoided costs and savings. (TR 750.) MPC used a weighted average in some instances and a flat estimate in others. At least in the case of the LIWP, MPC adjusted the default avoided costs for seasonal differences in the amount of the resource acquired. (MPC Exh. No. 22, p. 9.)

The Commission believes that MPC's analysis should reflect seasonal specific estimates of costs and savings.

#### Conservation Investments and Avoidable Line Losses

Another technical issue concerns line losses. MPC disagrees with Mr. Mueller's proposed use of the NWPPC's 10 percent line loss estimate in favor of its own (TR 757). Mr. Maxwell's "marginal energy loss factors" from Docket 87.4.21 were 9.37%, 10.88% and 15.84% respectively for the transmission, and primary and secondary distribution levels of service, with capacity losses slightly higher. DNRC appears to have used MPC's electric line loss values, but they were lower than those Mr. Maxwell included in his recent Docket No. 87.4.21 testimony. (DNRC Exh. No. 5, p. 8.) Gas line losses differ from electric losses ranging around 6% for transmission and distribution (TR 1140) and another 3.5% associated with storage injections.

The Commission finds MPC should include marginal line losses in its gas and electric avoided cost analysis, for both energy and capacity. It would be appropriate for MPC to use its own values, such as those proposed by Mr. Maxwell in the electric case, and Ms. Schellin in the gas case. Of course these values change through time.

Financial Avoidable Costs: Bad Debts

As background, the development of electric avoided costs has traditionally been based on avoided energy and capacity costs.

In this docket parties expanded this perspective to include avoidable costs of a financial nature.

MPC stated that although benefits associated with bad debts may exist, they are difficult to quantify. MPC contends that such factors should be considered only when the economic analysis of certain investments shows those investments to be borderline. (TR 742.)

Mr. Colton proposed including "bad debt" costs in developing avoidable costs for conservation analyses, especially for low-income customers. (TR 1221.) Mr. Colton was unable to quantify the dollar amounts associated with this policy proposal for MPC, but differentiated three sources, including non-, late and partial payments. (HRC Exh. No. 3, pp. 36-37.) Mr. Colton added that disconnect and reconnect costs may be avoidable in addition to bad debt costs. (TR 1217.) Mr. Colton also stated that zero interest loan programs are not effective with low-income consumers.

Because the benefits associated with bad debts are difficult to quantify, Mr. Mueller believes that low-income conservation should be given the benefit of the doubt. (TR 609.)

The Commission finds appropriate the idea of analyzing bad debt avoidable costs incurred by MPC. To the extent that MPC

can avoid connect charges, this should also be part of the analysis. The merit of a late payment charge would also be an appropriate item to include in the analysis, since MPC is the only large utility without such a charge.

### Conservation Cost Advantages versus Utility Incentives

Different policy incentive mechanisms exist to encourage a utility to begin rigorously analyzing and including conservation resources in its gas or electric supply functions. Two different approaches to pursue this objective have surfaced in this docket. The first involves giving conservation resources a cost advantage in the resource stack. Some parties mentioned that the NWPPCA allows conservation resources a 10 percent advantage in the resource stack.

In addition to the concept of giving conservation investments an advantage in the resource stack, there also is the idea of giving shareholders an incentive to pursue conservation resources. The statutory 2 percent increase in the allowed return on common equity is one such example.

Dr. Power combined these two concepts and argued that it is irrational not to take environmental costs into account in the cost effectiveness analysis. Due to the difficulty of quantifying such costs, Dr. Power suggests giving the utility an incentive rate of return, much as the NWPPC grants conservation a 10 percent

premium when compared to conventional resources. (HRC Exh. No. 3, p. 40.)

Dr. Power also commented extensively on other incentive mechanisms. As a general matter, he stated it is important to view regulation as attempting to change the incentives faced by the utility so that the interests of the utility and society are brought into alignment. (TR 1400.) Dr. Power added that the Commission can try to change the set of incentives so that the utility can view conservation and traditional generation investments as equally attractive. (TR 1401.) As one example, Dr. Power noted the disincentive faced by a utility in pursuing conservation because of the link between a utility's profits and its level of sales. To cure this disincentive, the Commission could approve an automatic adjustment in rates to offset the impact of any increase or decrease in sales or profits. (HRC Exh. No. 3, p. 52.) Dr. Power added that incentives are one of the issues to be addressed by the LCPAC.

In this regard, Mr. Mueller stated that one way in which conservation could be given the benefit of the doubt is by increasing the utility's rate of return by up to 2 percent. (TR 610.)

With respect to the concept of allowing a 2 percent higher rate of return, DNRC stated it does not wholeheartedly support the use of differential returns on investment, although one may be justified in some cases. (DNRC DR PSC-352.) These

instances include the existence of market failure and lack of institutional mechanisms. (TR 1434-1435.) DNRC added, however, that it prefers addressing market failure arguments directly by including external costs and benefits in the cost effectiveness test, rather than a differential return on investment. A differential return would tend to become institutionalized and difficult to remove when the reason for its existence expired. (DNRC DR PSC-414.)

The Commission finds that as a general matter conservation policies should be cost based. As pointed out earlier, there is not necessarily a "bright line" between conservation cost advantages and utility incentives. A 15 year amortization, for example, is an incentive mechanism to shareholders to pursue conservation. There are other issues raised that relate to incentive mechanisms favoring conservation. The proposal to ignore take-back provides conservation a distinct advantage. The impacts of indirect incentives should be considered in conjunction with direct incentive impacts. For these reasons, the Commission finds no need to, for example, grant MPC an added return on equity for conservation investments. Moreover MPC has not requested such an adder in this docket.

Inter-regional Markets and Conservation's Value

MPC states that spot market prices and purchases should not bear on how cost effective conservation investments are analyzed. (TR 756.) Further, MPC's Post-Hearing Opening Brief stated as "an important fact" that the nominally levelized off-system sales price projections for 22 years equal 36 mills (p. 50).

MPC, however, referred to this value with regard to Colstrip Unit No. 4, not conservation. The Commission finds MPC's argument that spot prices have no relevance in valuing conservation to be flawed.

The Commission likens spot prices to off-system opportunity sales in this regard. As MPC is aware, off-system opportunity sales are already factored into its default tariff avoided cost calculations (see Order No. 5091c, Finding Nos. 167 and 262). It does not matter whether the values derive from intra- or inter-regional opportunity sales. Thus, the Commission reaffirms the relevance of spot prices in avoided cost calculations for purposes of analyzing cost-effective conservation investments.

CONCLUSIONS OF LAW

1. All Findings of Fact are hereby incorporated as Conclusions of Law.

2. The Applicant, Montana Power Company, furnishes electric and gas service for consumers in the State of Montana, and is a "public utility" under the regulatory



jurisdiction of the Montana Public Service Commission. Section 69-3-101, MCA.

3. The Montana Public Service Commission properly exercises jurisdiction over Montana Power Company's rates and operations. Section 69-3-102, MCA, and Title 69, Chapter 3, Part 3, MCA.

4. The Montana Public Service Commission properly exercises jurisdiction over the rates, terms and conditions for the purchase of electricity by public utilities from qualified cogenerators and small power producers. Sections 69-3-102, 69-3-103 and 69-3-601 et seq., MCA. Section 210, Pub.L. 97-617, 92 Stat. 3119 (1978).

5. The rates that the Montana Public Service Commission has directed the Applicant to file are just and reasonable to Montana ratepayers as they reflect each utility's avoided energy and capacity costs.

6. The objective of encouraging cogeneration and small power production, as set forth in PURPA, is promoted by the rates, terms and conditions established by this order.

7. The Commission's ratemaking decisions are exempt from the requirements of Montana's Environmental Policy Act, Sections 75-1-101 et seq., MCA. The Commission

interprets Section 75-1-201, MCA, as an exception that applies to the Commission's ratemaking activities. This proceeding is designed to establish rates, and is included in the exception.

8. The Montana Public Service Commission properly exercises jurisdiction over complaints regarding cogeneration and small power production. Sections 69-3-321, 69-3-322, 69-3-330 and 69-3-601 et seq., MCA. Section 210, Pub.L. 97-617, 92 Stat. 3119 (1978).

9. The Commission's order herein resolves the complaint initiated by Boulder Hydro against the Montana Power Company.

10. The Montana Public Service Commission has provided adequate public notice of all proceedings, and an opportunity to be heard to all interested parties in this Docket. Sections 69-3-303, 69-3-104, MCA, and Title 2, Chapter 4, MCA.

11. The rate level approved herein is just, reasonable, and not unjustly discriminatory. Sections 69-3-330 and 69-3-201, MCA.

ORDER

THE MONTANA PUBLIC SERVICE COMMISSION HEREBY ORDERS:

1. Applicant, Montana Power Company, is hereby ordered to implement decreased rates for electric service designed to reduce annual electric revenues by \$19,711,835 on a total Company basis, a reduction of \$16,525,466 for the Company's Montana jurisdiction.

2. Applicant, Montana Power Company, is hereby authorized to implement increased rates for gas service designed to increase annual gas revenues by \$6,285,561.

The interim level provided in Order No. 5360a expires on the date permanent rates are effective.

3. Montana Power Company is hereby ordered to file revised rate schedules for electric and gas service which comport with all Commission determinations in this order.

4. For electric service, the revised rate schedules filed in compliance with this order shall provide for an equal percentage decrease for all electric classes of customers.

5. The filing of revised rate schedules for electric service under this order shall combine the effect of this order with the 1989 phase-in of the Rate

Moderation Plan, scheduled to go into effect on August 29, 1989.

6. For gas service, the revised rate schedules filed in compliance with this Order shall comport with the gas rate design determinations in this Order.

7. Montana Power Company is hereby ordered to develop rates for purchases from cogenerators and small power producers which are consistent with the Findings of Fact in this Order.

8. Proposed avoided cost tariffs and requested cost data and workpapers, must be filed with the Commission within three weeks from the date of the issue of this Order.

9. Montana Power Company is also required to make an additional compliance filing, pursuant to Findings of Fact Nos. 364 - 366. This filing, along with related cost data and workpapers must be filed with the Commission within three weeks from the date of the issue of this Order.

10. The Complaint proceeding initiated by Boulder Hydro against the Montana Power Company is hereby dismissed.

11. Montana Power Company is hereby ordered to conform to all Findings of Fact in this Order.

12. All motions or objections made in the course of this proceeding which are consistent with the findings, conclusions, and decision made herein are granted; those inconsistent are denied.

13. This Order is effective for service rendered on and after the 29th day of August, 1989.

Done and Dated this 14th day of August, 1989 by a vote of 5 - 0 .

BY ORDER OF THE MONTANA PUBLIC SERVICE COMMISSION

\_\_\_\_\_  
CLYDE JARVIS, Chairman

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HOWARD L. ELLIS, Vice Chairman

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JOHN B. DRISCOLL, Commissioner

\_\_\_\_\_  
WALLACE W. "WALLY" MERCER, Commissioner

\_\_\_\_\_  
DANNY OBERG, Commissioner

ATTEST:

Ann Purcell  
Acting Commission Secretary

(SEAL)

NOTE: Any interested party may request that the Commission reconsider this decision. A motion to reconsider must be filed within ten (10) days. See ARM 38.2.4806.